

=> fil reg

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STRUCTURE FILE UPDATES: 2 JUN 2010 HIGHEST RN 1226851-61-1  
 DICTIONARY FILE UPDATES: 2 JUN 2010 HIGHEST RN 1226851-61-1

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TSCA INFORMATION NOW CURRENT THROUGH January 8, 2010.

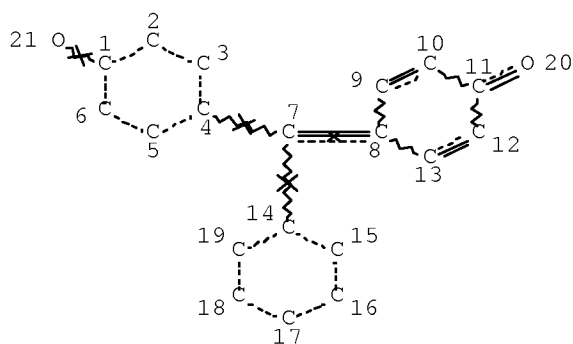
Please note that search-term pricing does apply when  
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REGISTRY includes numerically searchable data for experimental and  
 predicted properties as well as tags indicating availability of  
 experimental property data in the original document. For information  
 on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

=> d que 149

L2 8 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON (115-41-3/BI OR  
 1667-99-8/BI OR 1796-92-5/BI OR 3564-18-9/BI OR 7440-05-3/B  
 I OR 7440-50-8/BI OR 7647-10-1/BI OR 7758-98-7/BI)  
 L3 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON "CHROME AZUROL  
 S"/CN  
 L4 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON "CHROME AZUROL  
 B"/CN  
 L6 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON "ERIOCHROME  
 CYANINE R"/CN  
 L7 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON "PYROCATECHOL  
 VIOLET"/CN  
 L10 STR



NODE ATTRIBUTES:

NSPEC IS RC AT 7  
 NSPEC IS RC AT 21  
 DEFAULT MLEVEL IS ATOM

10/530,790

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE

L14 SCR 1139

L16 931 SEA FILE=REGISTRY SSS FUL L10 AND L14

L17 2 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L16 AND L2

L19 2 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L2 AND PD/ELS

L22 124082 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L19

L23 1090 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L17

L24 19 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L22 AND L23

L25 12051 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L16

L26 82 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L22 AND L25

L27 54 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L26 AND ANST/RL

L28 2280 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L3 OR L4 OR L6 OR

L7

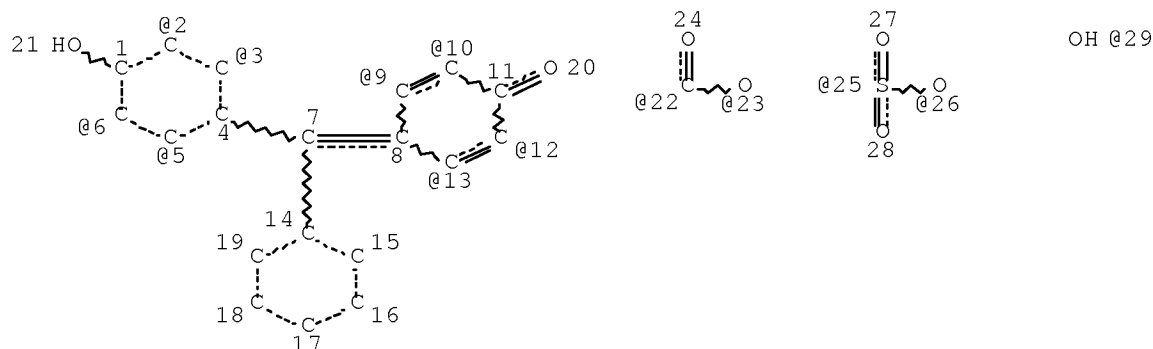
L29 39 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L28 AND L22

L30 32 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L29 AND ANST/RL

L31 31 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L30 AND (1840-2003

)/PRY,AY,PY

L33 STR



G1 @30 G1 @31

VAR G1=29/25/26/22/23

VPA 30-2/3/5/6 U

VPA 31-9/10/12/13 U

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 31

STEREO ATTRIBUTES: NONE

L35 167 SEA FILE=REGISTRY SUB=L16 SSS FUL L33

L36 3081 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L35

L37 37 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L36 AND L22

L38 36 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L37 AND (1840-2003

)/PRY,AY,PY

10/530,790

L40 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON 7440-05-3/RN  
L41 116334 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L40  
L42 36 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L38 AND L41  
L43 18 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L24 AND (1840-2003  
)/PRY,AY,PY  
L44 36 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L42 OR L43  
L45 22 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L31 AND L44  
L46 36 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L44 OR L45  
L48 27 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L27 AND L46  
L49 36 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L46 OR L48

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 11:24:34 ON 03 JUN 2010  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
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FILE COVERS 1907 - 3 Jun 2010 VOL 152 ISS 23  
FILE LAST UPDATED: 2 Jun 2010 (20100602/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2010  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2010

HCAPLUS now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2010.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

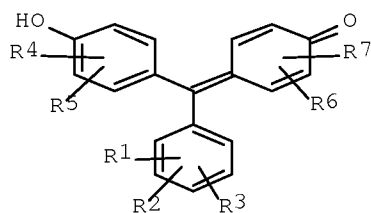
=> d l49 1-36 ibib ed abs hitstr hitind

L49 ANSWER 1 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2004:355210 HCAPLUS Full-text  
DOCUMENT NUMBER: 140:353235  
TITLE: Test strip for determining creatinine  
INVENTOR(S): Kosaka, Hideko  
PATENT ASSIGNEE(S): Arkray, Inc., Japan  
SOURCE: PCT Int. Appl., 29 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2004036225	A1	20040429	WO 2003-JP13166	20031015
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
JP 2004138408	A	20040513	JP 2002-300959	20021015
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EP 1560027	A1	20050803	EP 2003-754123	20031015
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CN 1705883	A	20051207	CN 2003-80101391	20031015
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CN 100350251	C	20071121		
US 20050266574	A1	20051201	US 2005-530790	20050408
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PRIORITY APPLN. INFO.:			JP 2002-300959	A 20021015
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			WO 2003-JP13166	W 20031015
			<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT  
OTHER SOURCE(S):           MARPAT 140:353235  
ED   Entered STN:   30 Apr 2004  
GI



AB   A novel test strip for determining creatinine is provided. The test strip is produced by incorporating a compound represented by the general formula (I), a metal capable of reacting with the compound to form a color complex, and a buffer into a porous material. The quantity of creatinine is determined by optically measuring the quantity of a color complex formed from the compound and the metal, and determining the inhibition of this color complex formation

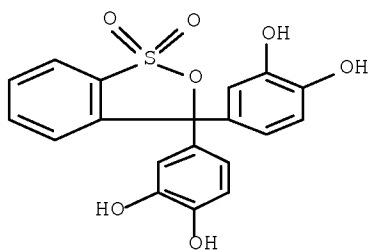
10/530,790

by creatinine. In I, R1 is H, SO<sub>3</sub>X, or COOX; R4 and R6 are each independently OH, SO<sub>3</sub>X, or COOX; R2, R3, R5, and R7 are each independently H, OH, Cl, Br, I, NO<sub>2</sub>, NO, or CH<sub>3</sub>; and Xs in R1, R4, and R6 are each independently H, Na, K, or NH<sub>4</sub>.

IT 115-41-3 1667-99-8, Chrome Azurol S  
 1796-92-5 3564-18-9, Eriochrome Cyanine R  
 7440-05-3, Palladium, uses 7647-10-1, Palladium  
 chloride  
 (test strip for determining creatinine)

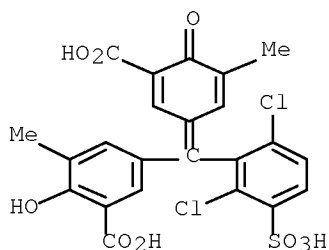
RN 115-41-3 HCAPLUS

CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-  
 (CA INDEX NAME)



RN 1667-99-8 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulfophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:3) (CA INDEX NAME)

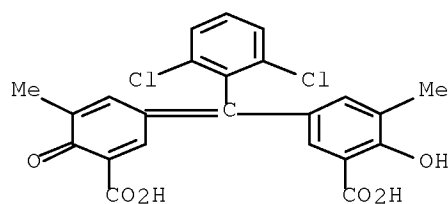


●3 Na

RN 1796-92-5 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichlorophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:2) (CA INDEX NAME)

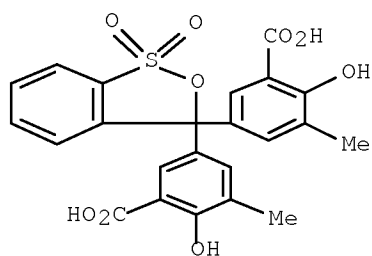
10/530,790



●2 Na

RN 3564-18-9 HCAPLUS

CN Benzoic acid, 3,3'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[6-hydroxy-5-methyl-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

Pd

RN 7647-10-1 HCAPLUS

CN Palladium chloride (PdCl<sub>2</sub>) (CA INDEX NAME)

Cl—Pd—Cl

IC ICM G01N033-70

ICS G01N033-52

CC 9-15 (Biochemical Methods)

IT 115-41-3 1667-99-8, Chrome Azurol S

1796-92-5 3564-18-9, Eriochrome Cyanine R

7440-05-3, Palladium, uses 7440-50-8, Copper, uses

10/530,790

7647-10-1, Palladium chloride 7758-98-7, Copper sulfate,  
uses

(test strip for determining creatinine)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS  
RECORD (5 CITINGS)  
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L49 ANSWER 2 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2004:36430 HCAPLUS Full-text

DOCUMENT NUMBER: 140:103980

TITLE: Extraction separation of palladium(II) using  
polyethylene glycol-ammonium sulfate-xyleneol  
orange

AUTHOR(S): Hu, Rui-guang; Lin, Qiu-yue; Liu, Tian-xi

CORPORATE SOURCE: Department of Chemistry, Zhejiang Normal  
University, Jinhua, 321004, Peop. Rep. China

SOURCE: Fenxi Shiyanshi (2003), 22(6), 47-49

CODEN: FENSE4; ISSN: 1000-0720

PUBLISHER: Fenxi Shiyanshi Bianjibu

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

ED Entered STN: 16 Jan 2004

AB In polyethylene glycol-ammonium sulfate-water system, extraction behavior of  
the complexes of Pd(II) with extractants (XO, CPA III, Chromazarol S, Zincon,  
PAN-S) were investigated. The results indicated that in solution at pH 1.0  
.apprx. 6.0 the complex of Pd(II) with XO was almost completely extracted by  
PEG phase, while extraction yield of Fe(II), Co(II), Zn(II) changed with pH,  
and Mn(II), Cd(II) were not extracted at all. Quant. separation of Pd(II) from  
ions of Fe(II), Co(II), Zn(II), Mn(II), Cd(II) in pH 1.0 .apprx. 2.0 (HClO4)  
was performed.

IT 7440-05-3, Palladium, analysis

(extraction separation of palladium(II) using polyethylene glycol-ammonium  
sulfate-xyleneol orange)

RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

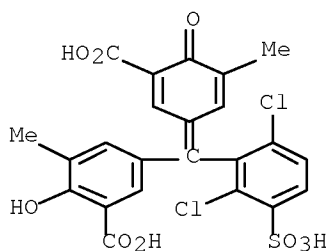
Pd

IT 1667-99-8

(extraction separation of palladium(II) using polyethylene glycol-ammonium  
sulfate-xyleneol orange)

RN 1667-99-8 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-  
ylidene)(2,6-dichloro-3-sulphophenyl)methyl]-2-hydroxy-3-methyl-,  
sodium salt (1:3) (CA INDEX NAME)



● 3 Na

CC 79-4 (Inorganic Analytical Chemistry)  
 Section cross-reference(s): 68  
 IT 7439-89-6, Iron, analysis 7439-96-5, Manganese, analysis  
 7440-05-3, Palladium, analysis 7440-43-9, Cadmium, analysis  
 7440-48-4, Cobalt, analysis 7440-66-6, Zinc, analysis  
 (extraction separation of palladium(II) using polyethylene glycol-ammonium sulfate-xylene orange)  
 IT 85-85-8, PAN 135-52-4, Zincon 1611-35-4, Xylene orange  
 1667-99-8  
 (extraction separation of palladium(II) using polyethylene glycol-ammonium sulfate-xylene orange)

L49 ANSWER 3 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2003:855556 HCAPLUS Full-text  
 DOCUMENT NUMBER: 139:347692  
 TITLE: Determination of elements in body fluids and test kit including the necessary reagents for diagnosis of diseases caused by elemental imbalances  
 INVENTOR(S): Rupp, Michael E.  
 PATENT ASSIGNEE(S): Future Data, Inc., USA  
 SOURCE: U.S. Pat. Appl. Publ., 13 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20030203495	A1	20031030	US 2003-423130	20030424
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US 6821786	B2	20041123		
WO 2003091725	A1	20031106	WO 2003-US12911	20030425
			<--	

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 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,



10/530,790

NE, SN, TD, TG  
AU 2003223735 A1 20031110 AU 2003-223735 20030425  
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EP 1504257 A1 20050209 EP 2003-719936 20030425  
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PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK  
JP 2005524071 T 20050811 JP 2004-500061 20030425  
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PRIORITY APPLN. INFO.:  
US 2002-375566P P 20020425  
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US 2003-423130 A 20030424  
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WO 2003-US12911 W 20030425  
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 31 Oct 2003

AB A self-diagnostic test, a self-diagnostic test apparatus, and method of manufacturing a self-diagnostic test for screening for elemental mineral imbalances in a patient utilizing an anal. of the reaction of mineral specific reagents to a sample from a patient are provided. In one embodiment, the invention is directed to a test for those elements that occur naturally in the body. In such an embodiment, the invention may test for those elements that comprise about 0.001% of the body weight or less (microtrace), those elements that comprise about 4% of the body weight or less (trace), those elements that comprise up to 96% of the body weight (mass), or any combination of the above. A test strip includes series of reagent spots for the colorimetric determination of the individual elements.

IT 7440-05-3, Palladium, analysis  
(determination of elements in body fluids and test kit including the necessary reagents for diagnosis of diseaseses caused by elemental imbalances)

RN 7440-05-3 HCAPLUS

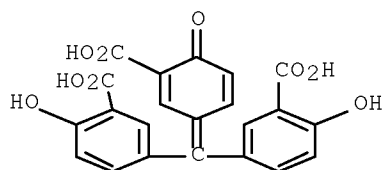
CN Palladium (CA INDEX NAME)

Pd

IT 569-58-4, Aluminon 1667-99-8 7647-10-1  
, Palladium chloride  
(determination of elements in body fluids and test kit including the necessary reagents for diagnosis of diseaseses caused by elemental imbalances)

RN 569-58-4 HCAPLUS

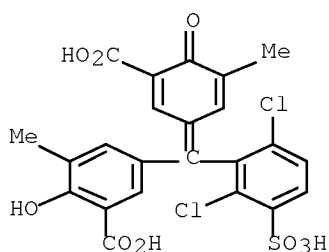
CN Benzoic acid, 3,3'-[(3-carboxy-4-oxo-2,5-cyclohexadien-1-ylidene)methylene]bis[6-hydroxy-, ammonium salt (1:3) (CA INDEX NAME)



●3 NH<sub>3</sub>

RN 1667-99-8 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulphophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

RN 7647-10-1 HCAPLUS

CN Palladium chloride (PdCl<sub>2</sub>) (CA INDEX NAME)



IC ICM G01N031-22

ICS G01N033-20

INCL 436074000; 422056000

CC 9-1 (Biochemical Methods)

Section cross-reference(s): 4, 14

IT 7429-90-5, Aluminum, analysis 7429-91-6, Dysprosium, analysis  
 7429-92-7, Einsteinium, analysis 7439-88-5, Iridium, analysis  
 7439-89-6, Iron, analysis 7439-90-9, Krypton, analysis 7439-91-0,  
 Lanthanum, analysis 7439-92-1, Lead, analysis 7439-93-2, Lithium,  
 analysis 7439-94-3, Lutetium, analysis 7439-95-4, Magnesium,  
 analysis 7439-96-5, Manganese, analysis 7439-97-6, Mercury,  
 analysis 7439-98-7, Molybdenum, analysis 7439-99-8, Neptunium,  
 analysis 7440-00-8, Neodymium, analysis 7440-01-9, Neon, analysis  
 7440-02-0, Nickel, analysis 7440-03-1, Niobium, analysis  
 7440-04-2, Osmium, analysis 7440-05-3, Palladium, analysis

7440-06-4, Platinum, analysis 7440-07-5, Plutonium, analysis  
 7440-08-6, Polonium, analysis 7440-10-0, Praseodymium, analysis  
 7440-11-1, Mendelevium, analysis 7440-12-2, Promethium, analysis  
 7440-13-3, Protactinium, analysis 7440-14-4, Radium, analysis  
 7440-15-5, Rhenium, analysis 7440-16-6, Rhodium, analysis  
 7440-18-8, Ruthenium, analysis 7440-19-9, Samarium, analysis  
 7440-20-2, Scandium, analysis 7440-21-3, Silicon, analysis  
 7440-22-4, Silver, analysis 7440-23-5, Sodium, analysis 7440-24-6,  
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 Technetium, analysis 7440-27-9, Terbium, analysis 7440-28-0,  
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 7440-65-5, Yttrium, analysis 7440-66-6, Zinc, analysis 7440-67-7,  
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 Bismuth, analysis 7440-70-2, Calcium, analysis 7440-71-3,  
 Californium, analysis 7440-72-4, Fermium, analysis 7440-73-5,  
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 analysis 7723-14-0, Phosphorus, analysis 7726-95-6, Bromine,  
 analysis 7782-41-4, Fluorine, analysis 7782-49-2, Selenium,  
 analysis 7782-50-5, Chlorine, analysis 10028-14-5, Nobelium,  
 analysis 10043-92-2, Radon, analysis 13494-80-9, Tellurium,  
 analysis 53850-36-5, Rutherfordium, analysis

(determination of elements in body fluids and test kit including the  
 necessary reagents for diagnosis of diseases caused by elemental  
 imbalances)

IT 54-64-8, Thiomersal 60-10-6, Dithizone 61-73-4, Methylene blue  
 62-38-4, Phenylmercury acetate 66-71-7, 1,10-Phenanthroline  
 72-48-0, Alizarin 75-17-2, Form-aldoxime 81-64-1, Quinizarin  
 81-88-9, Rhodamine B 85-85-8, PAN 91-95-2, 3,3'-Diaminobenzidine  
 93-42-5, Thionalide 95-45-4, Dimethylglyoxime 95-54-5,  
 o-Phenylenediamine, biological studies 95-83-0,  
 4-Chloro-o-phenylenediamine 106-50-3, p-Phenylenediamine, biological  
 studies 107-27-7, Ethylmercury chloride 123-54-6, Acetylacetone,  
 biological studies 129-16-8, Mercurochrome 130-22-3, Alizarin red  
 S 135-52-4, Zincon 138-85-2, PCMB 138-89-6,  
 p-Nitroso-N,N-dimethylaniline 140-22-7, Diphenylcarbazine  
 143-66-8, Kalibor 147-84-2, biological studies 148-18-5, Na-DDTC  
 148-24-3, Oxine, biological studies 148-25-4, Chromotropic acid  
 149-45-1, Tiron 294-93-9D, 12-crown-4, derivs. 301-04-2, Lead  
 acetate 303-07-1, 2,6-Dihydroxybenzoic acid 458-37-7, Curcumin  
 480-16-0, Morin 484-11-7, Neocuproin 491-33-8, Thiooxine  
 492-18-2, Mersalyl 496-74-2, Toluene-3,4-dithiol 506-61-6,  
 Potassium silver cyanide 507-28-8, Tetraphenylarsonium chloride  
 520-10-5, Neo-thorin 522-27-0,  $\alpha$ -Furildioxime 538-62-5,  
 Diphenylcarbazon 541-09-3, Diacetatodioxouranium 548-62-9,  
 Crystal violet 554-77-8, PCMB 562-76-5, Dipotassium platinum  
 tetracyanide ~~569-58-4~~, Aluminon 569-61-9, Pararosanine

569-64-2, Malachite green 592-04-1, Mercury Cyanide (Hg(CN)<sub>2</sub>)  
 592-63-2 603-48-5, Leuco crystal violet 633-03-4, Brilliant green  
 637-31-0, Bindschedler's green leuco base 643-79-8, o-Phthalaldehyde  
 771-97-1, 2,3-Diaminonaphthalene 773-76-2, 5,7-Dichlorooxine  
 826-81-3, 2-Methyloxine 975-17-7, Phenylfluorone 979-88-4,  
 Disodium 2,2'-bicinchoninate 1020-31-1, 3,5-Di-tert-butylcatechol  
 1046-56-6, PDT 1072-71-5, Bismuthiol 1141-59-9, PAR 1149-16-2,  
 Glyoxal bis(2-hydroxyanil) 1184-63-0, Europium triacetate  
 1226-46-6 1251-85-0, Diantipyrilmethane 1308-96-9, Europium  
 trioxide 1314-64-3, Uranyl sulfate 1600-27-7, Mercury acetate  
 1611-35-4, Xylenol orange ~~1667-99-8~~ 1668-00-4, Arsenazo  
 III 1738-02-9, Sulfonazo III 1914-99-4, Chlorophosphonazo-III  
 1945-78-4, Bis(2-benzothiazolyl)methane 1964-89-2, Dinitrosulfonazo  
 III 2050-14-8, o,o'-Dihydroxyazobenzene 2103-73-3,  
 Sulfochlorophenol-S 2235-25-8, Ethylmercury phosphate 2312-73-4,  
 BPA 2390-59-2, Ethyl violet 3051-09-0, Murexide 3147-14-6,  
 Calmagite 3449-05-6, Salicylideneamino-2-thiophenol 3627-04-1,  
 Beryllon III 3682-35-7, TPTZ 3688-92-4, Thorin 4386-25-8,  
 Lumogallion 4552-64-1, 3-Buten-2-one,  
 1,1,1-trifluoro-4-mercapto-4-(2-thienyl)- 4733-39-5, Bathocuproin  
 6098-81-3, o-Nitrophenylfluorone 6358-20-9,  
 2-Nitroso-5-diethylaminophenol 7249-72-1 7487-94-7, Mercury  
 chloride (HgCl<sub>2</sub>), biological studies ~~7647-10-1~~, Palladium  
 chloride 7758-95-4, Lead chloride 7761-88-8, Silver nitrate,  
 biological studies 7772-99-8, Tin chloride, biological studies  
 7783-33-7 7791-29-9 10025-98-6, Dipotassium tetrachloropalladate  
 10025-99-7, Dipotassium platinum tetrachloride 10035-10-6, Hydrogen  
 bromide, biological studies 10042-88-3, Terbium chloride (TbCl<sub>3</sub>)  
 10099-74-8, Lead nitrate 10102-05-3, Palladium nitrate 10102-06-4,  
 Uranium dinitrate dioxide 10168-81-7, Gadolinium nitrate  
 10361-83-8, Samarium trinitrate 10465-27-7, Samarium triacetate  
 11098-84-3, Ammonium molybdate 13435-46-6, Barium chloranilate  
 13472-45-2 13569-63-6, Rhenium trichloride 13682-61-6, Potassium  
 tetrachloroaurate 13746-89-9 13766-44-4, Mercury sulfate  
 13815-39-9, Dipotassium tetranitroplatinate 13823-29-5 13826-93-2,  
 Dipotassium tetrabromopalladate 13967-50-5, Potassium auro cyanide  
 14024-41-0, Potassium iridium chloride (K<sub>3</sub>IrCl<sub>6</sub>) 14096-51-6  
 14178-30-4, syn-Phenyl-2-pyridylketoxime 14337-53-2, 5-Br-PADAP  
 14337-54-3 14708-55-5 14708-99-7, Tris (1,10-phenanthroline  
 )iron(2+) 15189-51-2, Sodium tetrachloroaurate 15584-04-0,  
 Arsenate 15702-05-3, Sodium iridium chloride (Na<sub>3</sub>IrCl<sub>6</sub>)  
 16056-77-2, Gadolinium triacetate 16574-43-9, Bromopyrogallol red  
 16761-04-9, 2-Nitroso-5-dimethylaminophenol 16871-60-6, Dipotassium  
 hexachloroosmate(2-) 16905-14-9, Dipotassium hexaiodoplatinate  
 16921-30-5, Dipotassium platinum hexachloride 16922-12-6, Ytterbium  
 acetate 17654-88-5 19426-75-6, Potassium fluouranate(VI)  
 (K<sub>3</sub>(UO<sub>2</sub>F<sub>5</sub>)) 19718-36-6, Dipotassium osmate 26035-31-4  
 28048-33-1, Benzenesulfonic acid,  
 4,4'-[3-(2-pyridyl)-as-triazine-5,6-diyl]di-, disodium salt  
 29416-86-2, 1H-Perimidin-2-amine, hydrochloride 30136-15-3,  
 Nitrocatechol 32266-60-7, Azomethine-H 33006-91-6, 5-Cl-PADAB  
 33100-27-5D, 15-Crown-5, nitrophenylazo derivs. 35218-75-8, TPPS  
 38673-65-3, Tetrakis(4-N-methylpyridyl)porphine 40835-97-0, Calcium  
 bis[4-(1,1,3,3-tetramethylbutyl)phenyl] phosphate 42055-55-0  
 50768-75-7, 4-(5-Bromo-2-pyridylazo)-1,3-diaminobenzene 55034-79-2,  
 PV 65271-28-5, Dimethylsulfonazo-III 67708-10-5,  
 2,4-Dinitro-1,8-naphthalenediol 69104-18-3 72833-87-5,  
 2-(3,5-Dibromopyridylazo)-5-(dimethylamino)benzoic acid 73630-23-6,  
 Quin 2 75964-78-2, Cesibor 79551-14-7, Ferene S 80459-15-0,  
 2-Nitroso-5-(N-propyl-N-sulfopropylamino)phenol 81342-98-5,

Bis[2-(5-chloro-2-pyridylazo)-5-(diethylamino)phenol]cobalt(III) chloride 81608-06-2, 2-(5-Bromo-2-pyridylazo)-5-(N-propyl-N-sulfopropylamino)phenol 82138-69-0, TAMSMB 83104-85-2, Quin 2AM 83474-84-4, Samarium tetrachloride 83688-78-2, 2-(2-Benzothiazolylazo)-5-dimethylaminobenzoic acid 83907-40-8, SPQ 85079-16-9, 2-Thiophenesulfonic acid, 5,5',5'',5'''-(21H,23H-porphine-5,10,15,20-tetrayl)tetrakis-87035-61-8, 2-(5-Bromo-2-pyridylazo)-5-(N-propyl-N-sulfopropylamino)aniline 96314-96-4, Indo 1 96314-98-6, Fura 2 98645-85-3, Bathocuproine disulfonic acid disodium salt 98645-86-4, Batho-phenanthroline disulfonic acid disodium salt 100743-65-5, 4-(3,5-Dibromo-2-pyridylazo)-N-ethyl-N-sulfopropylaniline 102725-12-2D, Me derivs. 106868-21-7, 6.6-Dibenzyl-14-crown-4 108964-32-5, Fura 2AM 112926-02-0, Indo 1AM 121714-22-5, Fluo 3AM 123632-39-3, Fluo 3 127689-06-9, Dotite Alfosone 139542-74-8, 2-(5-Nitro-2-pyridylazo)-5-[N-propyl-N-(3-sulfopropyl) amino] phenol 151460-00-3, TTD-14-crown-4 162558-52-3, Quinolinium, 1-(2-ethoxy-2-oxoethyl)-6-methoxy-, bromide 181530-09-6, Acetic acid, [[2-methyl-8-[[[(4-methylphenyl)sulfonyl]amino]-6-quinolinyl]oxy]-ethyl ester 617691-88-0 618084-93-8 618086-59-2D, phospho derivs. 618104-70-4, Pyrogallol Red AM

(determination of elements in body fluids and test kit including the necessary reagents for diagnosis of diseases caused by elemental imbalances)

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)  
 REFERENCE COUNT: 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 4 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2000:90173 HCAPLUS Full-text

DOCUMENT NUMBER: 132:259764

TITLE: The extraction chromatography of copper (II) with trioctylphosphine oxide

AUTHOR(S): Rokade, M. D.; Dhadke, P. M.

CORPORATE SOURCE: Inorganic Chemistry Laboratory, Department of Chemical Technology, University of Bombay, Mumbai, 400 019, India

SOURCE: Research Journal of Chemistry and Environment (1999), 3(3), 43-46

CODEN: RJCEF7; ISSN: 0972-0626

PUBLISHER: Research Journal of Chemistry and Environment

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 09 Feb 2000

AB The separation of copper by extraction chromatog. was studied using trioctylphosphine oxide (TOPO) absorbed on hydrophobic silica gel. The separation of copper from large number elements in binary mixts. was carried out by exploiting the difference in their extractability with TOPO at different concentration of HCl. It was also found possible to sep. copper from multicomponent mixture by using the difference in concentration of acids, with which they are eluted out of the stationary phase. The column performance as a function of flow rate and temperature was studied for the extraction of copper. The method was extended for the determination of copper in real samples.

IT 7440-05-3, Palladium, analysis

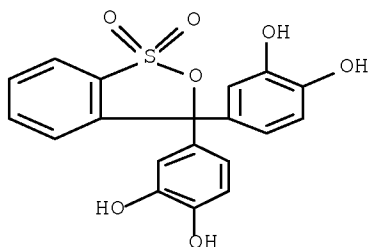
(copper determination in mixts. and alloys by extraction chromatog. with trioctylphosphine oxide and spectrophotometry)

RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

Pd

IT ~~115-41-3~~, Pyrocatechol violet  
 (copper determination in mixts. and alloys by extraction chromatog. with  
 trioctylphosphine oxide and spectrophotometry)  
 RN 115-41-3 HCAPLUS  
 CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-  
 (CA INDEX NAME)



CC 79-4 (Inorganic Analytical Chemistry)  
 Section cross-reference(s): 56  
 IT 7429-90-5, Aluminum, analysis 7439-89-6, Iron, analysis 7439-96-5,  
 Manganese, analysis 7440-02-0, Nickel, analysis ~~7440-05-3~~  
 , Palladium, analysis 7440-28-0, Thallium, analysis 7440-31-5,  
 Tin, analysis 7440-32-6, Titanium, analysis 7440-36-0, Antimony,  
 analysis 7440-43-9, Cadmium, analysis 7440-48-4, Cobalt, analysis  
 7440-50-8, Copper, analysis 7440-66-6, Zinc, analysis  
 (copper determination in mixts. and alloys by extraction chromatog. with  
 trioctylphosphine oxide and spectrophotometry)  
 IT 78-50-2, Trioctylphosphine oxide 79-40-3, Rubeanic acid  
~~115-41-3~~, Pyrocatechol violet 302-04-5, Thiocyanate, uses  
 525-05-3, Nitroso-R salt 1141-59-9, PAR 3051-09-0, Murexide  
 (copper determination in mixts. and alloys by extraction chromatog. with  
 trioctylphosphine oxide and spectrophotometry)  
 REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
 RE FORMAT

L49 ANSWER 5 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1997:482217 HCAPLUS Full-text  
 DOCUMENT NUMBER: 127:225740  
 ORIGINAL REFERENCE NO.: 127:43915a, 43918a  
 TITLE: Formation of binary, binucleating and mixed metal  
 complexes of catechol violet  
 AUTHOR(S): Upadhyaya, Poonam; Singh, Mamta; Vimal, Rashmi;  
 Nayan, Ram  
 CORPORATE SOURCE: Department of Chemistry, Hindu College, Moradabad,  
 244 001, India  
 SOURCE: Journal of the Indian Chemical Society (  
~~1997~~), 74(5), 367-372

PUBLISHER: Indian Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 02 Aug 1997

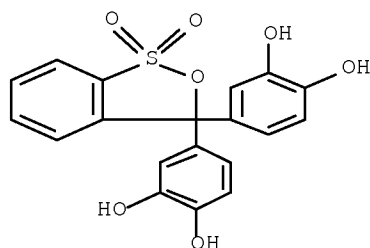
AB PH-metric studies on interaction of NiII, CuII, ZnII, PdII, AgI and CdII with 3, 4', 4'-trihydroxyfuchsome-2''-sulfonic acid (catechol violet, CAV) have been carried out in aqueous solution at 25° and an ionic strength of 0.1 M KNO<sub>3</sub>. Studies reveal the formation of the species MH<sub>2</sub>A, MHA, MA (M = NiII, CuII, ZnII, PdII, AgI and CdII); PdA(OH)<sub>3</sub>-; M(H<sub>2</sub>A)<sub>2</sub>, M(H<sub>2</sub>A)(HA), M(HA)<sub>2</sub> (M = NiII, CuII, ZnII, CdII); M(HA)(A) (M = ZnII, CdII); M<sub>2</sub>A (M = NiII, CuII, ZnII, PdII, CdII); M<sub>2</sub>A(OH) (M = CuII, ZnII, PdII, CdII); M<sub>2</sub>A(OH)<sub>2</sub> (M = ZnII, CdII); CuNiA, CuZnA; PdNiA, PdCuA, PdZnA, CuNiA(OH), CuZnA(OH), PdZnA(OH), CuNiA(OH)<sub>2</sub>, CuZnA(OH)<sub>2</sub> in the corresponding metal-ligand mixts. for which equilibrium consts. have been evaluated.

IT 115-41-3D, Catechol violet, metal complexes

7440-05-3D, Palladium, catechol violet complexes, properties  
(formation of binary, binuclear and mixed metal complexes of catechol violet)

RN 115-41-3 HCAPLUS

CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-  
(CA INDEX NAME)



RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

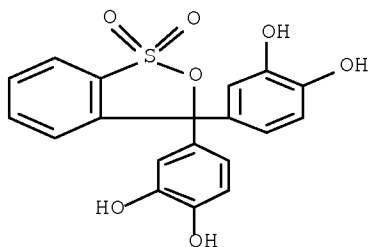
Pd

IT 115-41-3, Catechol violet

(proton-ligand dissociation constant of catechol violet)

RN 115-41-3 HCAPLUS

CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-  
(CA INDEX NAME)



CC 68-3 (Phase Equilibriums, Chemical Equilibriums, and Solutions)  
 IT 115-41-3D, Catechol violet, metal complexes 7440-02-0D,  
 Nickel, catechol violet complexes, properties 7440-05-3D,  
 Palladium, catechol violet complexes, properties 7440-22-4D, Silver,  
 catechol violet complexes, properties 7440-43-9D, Cadmium, catechol  
 violet complexes, properties 7440-50-8D, Copper, catechol violet  
 complexes, properties 7440-66-6D, Zinc, catechol violet complexes,  
 properties  
 (formation of binary, binuclear and mixed metal complexes of  
 catechol violet)  
 IT 115-41-3, Catechol violet  
 (proton-ligand dissociation constant of catechol violet)  
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS  
 RECORD (1 CITINGS)

L49 ANSWER 6 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1996:437026 HCAPLUS Full-text

DOCUMENT NUMBER: 125:184290

ORIGINAL REFERENCE NO.: 125:34193a,34196a

TITLE: Determination of trace gold and palladium in  
 geological samples by atomic absorption  
 spectrometry with separation and enrichment of  
 chromeazurol-s chelate forming resin

AUTHOR(S): Bao, Changli; Li, Zengwen; Zhang, Kai; Shun,  
 Qizhi; Chen, Yue Zhang

CORPORATE SOURCE: Dep. of Applied Chemistry, Changchun Univ. of  
 Earth Sciences, Changchun, 130026, Peop. Rep.  
 China

SOURCE: Microchemical Journal (1996), 54(1), 1-7  
 CODEN: MICJAN; ISSN: 0026-265X

PUBLISHER: Academic

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 24 Jul 1996

AB A method for the synthesis of chromeazurol-s (CA-S) chelate forming resin and  
 the determination of traces of Au and Pd in geol. samples is presented. Au  
 and Pd in solution are enriched on chromeazurol-s chelate forming resin column  
 in pH 1 HCl without adsorbing other base metal ions, and are eluted with 3%  
 acidic thiourea. The eluate is determined directly by flame atomic absorption  
 spectrometry. Operating parameters were studied. The relative standard  
 deviations (n = 6) of Au and Pd are 8.50 and 7.24%.

IT 7440-05-3, Palladium, analysis  
 (determination of trace gold and palladium in geol. samples by atomic  
 absorption spectrometry with separation and enrichment of chromeazurol-s  
 chelate forming resin)

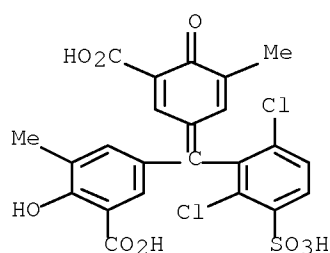
RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)



Pd

IT 1667-99-8, Chromeazurol-s  
 (determination of trace gold and palladium in geol. samples by atomic  
 absorption spectrometry with separation and enrichment of chromeazurol-s  
 chelate forming resin)  
 RN 1667-99-8 HCAPLUS  
 CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-  
 ylidene) (2,6-dichloro-3-sulphophenyl)methyl]-2-hydroxy-3-methyl-,  
 sodium salt (1:3) (CA INDEX NAME)



●3 Na

CC 79-6 (Inorganic Analytical Chemistry)  
 Section cross-reference(s): 53  
 IT 7440-05-3, Palladium, analysis 7440-57-5, Gold, analysis  
 (determination of trace gold and palladium in geol. samples by atomic  
 absorption spectrometry with separation and enrichment of chromeazurol-s  
 chelate forming resin)  
 IT 1667-99-8, Chromeazurol-s  
 (determination of trace gold and palladium in geol. samples by atomic  
 absorption spectrometry with separation and enrichment of chromeazurol-s  
 chelate forming resin)  
 OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS  
 RECORD (8 CITINGS)

L49 ANSWER 7 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1995:847834 HCAPLUS Full-text  
 DOCUMENT NUMBER: 124:20458  
 ORIGINAL REFERENCE NO.: 124:3727a,3730a  
 TITLE: Thiolometry  
 AUTHOR(S): Ryabushko, O. P.  
 CORPORATE SOURCE: T. G. Shevchenko Kiev State Univ., Kiev, Ukraine  
 SOURCE: Khimiya i Tekhnologiya Vody (1994),  
 16(4), 409-15  
 CODEN: KTVODL; ISSN: 0204-3556  
 PUBLISHER: Naukova Dumka  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 ED Entered STN: 11 Oct 1995

AB Thioloetry is chelatometric titration using S-bonding reagents with thiol and thione functional groups, which are more selective than complexones. The author has formulated principles of development of the theory and practice of application of S-containing reagents in titrimetric anal. as titrants; reagents for masking, isolation, concentration; selective metallo-chromic indicators and indicator ion-selective electrodes based on metal chelates with S-containing reagents as ion-active substances.

IT 7440-05-3, Palladium, analysis  
(thiolometric S-bonding reagents with thiol and thione functional groups for chelating titration metal detns.)

RN 7440-05-3 HCAPLUS

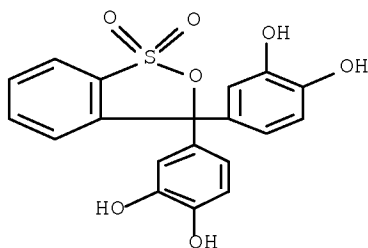
CN Palladium (CA INDEX NAME)

Pd

IT 115-41-3, Pyrocatechin violet  
(thiolometric S-bonding reagents with thiol and thione functional groups for chelating titration metal detns.)

RN 115-41-3 HCAPLUS

CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-  
(CA INDEX NAME)



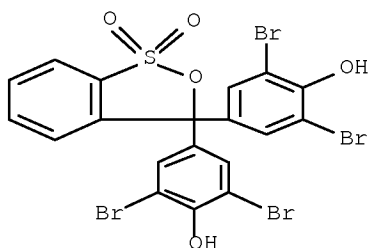
CC 79-3 (Inorganic Analytical Chemistry)

IT 7439-89-6, Iron, analysis 7439-92-1, Lead, analysis 7439-96-5, Manganese, analysis 7439-97-6, Mercury, analysis 7440-02-0, Nickel, analysis 7440-05-3, Palladium, analysis 7440-22-4, Silver, analysis 7440-28-0, Thallium, analysis 7440-31-5, Tin, analysis 7440-43-9, Cadmium, analysis 7440-50-8, Copper, analysis 7440-57-5, Gold, analysis 7440-66-6, Zinc, analysis 7440-69-9, Bismuth, analysis 7440-74-6, Indium, analysis  
(thiolometric S-bonding reagents with thiol and thione functional groups for chelating titration metal detns.)

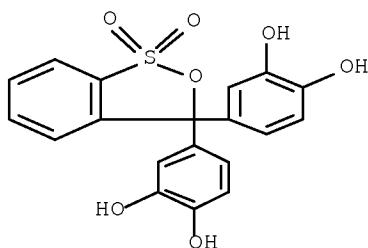
IT 60-10-6, Dithizone 60-10-6D, Dithizone, sulfonated 115-41-3, Pyrocatechin violet 1141-59-9, 4(2-Pyridylazo)resorcinol 1611-35-4, Xylenol orange 1772-02-7, Sulfarsazen 1787-61-7, Eriochrome Black T 32389-54-1, Pyridylazonaphthol 32638-88-3, Pyrogallol red  
(thiolometric S-bonding reagents with thiol and thione functional groups for chelating titration metal detns.)

L49 ANSWER 8 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 1994:691506 HCAPLUS Full-text

DOCUMENT NUMBER: 121:291506  
 ORIGINAL REFERENCE NO.: 121:53027a,53030a  
 TITLE: Triethanolamine as a releasing agent for controlling interferences in the atomic absorption spectrometric determination of gold and its use as a collector for the flotation of gold  
 AUTHOR(S): Ghazy, Shaban E.; Kabil, Mohamed A.; Mostafa, Mohamed A.  
 CORPORATE SOURCE: Fac. Sci., Mansoura Univ., Mansoura, Egypt  
 SOURCE: Journal of Analytical Atomic Spectrometry (1994), 9(8), 857-60  
 CODEN: JASPE2; ISSN: 0267-9477  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 10 Dec 1994  
 AB The interfering effects of a range of organic and inorg. species on the atomic absorption signal of gold were studied. These interferences were completely eliminated by adding 6 mmol/L triethanolamine (TEA) to both the sample and standard solns. The role of TEA was extended to the extraction of gold, with 100% recovery, from aqueous solns., using oleic acid as a surfactant at a pH of 0.5-2.0. A mechanism for the effect of TEA in the flotation and in the atomic absorption study was suggested. A simple, sensitive and rapid procedure for flotation and the atomic absorption spectrometric determination of gold in synthetic mixts. and natural waters was elaborated.  
 IT 115-39-9, Bromophenol blue 115-41-3, Catechol violet 7440-05-3, Palladium, analysis (interferant; triethanolamine for control of interferences in gold determination by atomic absorption)  
 RN 115-39-9 HCAPLUS  
 CN Phenol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[2,6-dibromo- (CA INDEX NAME)]



RN 115-41-3 HCAPLUS  
 CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis- (CA INDEX NAME)



RN 7440-05-3 HCAPLUS  
CN Palladium (CA INDEX NAME)

Pd

CC 79-6 (Inorganic Analytical Chemistry)  
Section cross-reference(s): 61  
IT 56-40-6, Glycine, analysis 60-00-4, Ethylenediaminetetraacetic acid,  
analysis 97-05-2, Sulfosalicylic acid 115-39-9,  
Bromophenol blue 115-41-3, Catechol violet 139-13-9,  
Nitrilotriacetic acid 623-59-6, Acetylmethyl urea 7440-02-0,  
Nickel, analysis 7440-05-3, Palladium, analysis  
7440-06-4, Platinum, analysis 7440-16-6, Rhodium, analysis  
7440-18-8, Ruthenium, analysis 7440-48-4, Cobalt, analysis  
13291-61-7, trans-1,2-Diaminocyclohexane-N,N,N',N'-tetraacetic acid  
(interferant; triethanolamine for control of interferences in gold  
determination by atomic absorption)  
OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS  
RECORD (4 CITINGS)

L49 ANSWER 9 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1994:686721 HCAPLUS Full-text

DOCUMENT NUMBER: 121:286721

ORIGINAL REFERENCE NO.: 121:52234h,52235a

TITLE: Analytical applications using aurintricarboxylic  
acid for spectrophotometric determination of iron  
(III), copper (II) and palladium (II). Estimation  
of iron in some pharmaceutical preparations

AUTHOR(S): El-Sheikh, R.; Shalaby, A.; Zaky, M.

CORPORATE SOURCE: Faculty Science and Pharmaceutical Chemistry,  
Zagazig University, Zagazig, Egypt

SOURCE: Egyptian Journal of Chemistry (1993),  
36(1), 55-60

CODEN: EGJCA3; ISSN: 0367-0422

PUBLISHER: National Information and Documentation Centre

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 10 Dec 1994

AB A spectrophotometric study of the reaction between Aurintricarboxylic acid and  
Fe (III), Cu(II), and Pd(II) ions have shown that 1:1 and 1:2 violet water-  
soluble-complexes were formed at pH 8. The organic reagent was found to be  
very suitable for spectrophotometric determination of Fe (III), Cu(II) and  
Pd(II) up to 10.800, 6.40 and 12.50 ppm, resp. The application of the ligand  
as an indicator in the spectrophotometric titration of Fe(III), Cu(II), and  
Pd(II) with EDTA and the interference of various cations and anions were  
reported. This method was applied to some pharmaceutical preps. for  
estimation of iron.

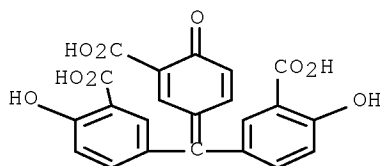
IT 7440-05-3, Palladium, analysis  
(determination of iron, copper and palladium in pharmaceutical preps. by  
spectrophotometry using aurintricarboxylic acid)

RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

Pd

IT 4431-00-9, Aurintricarboxylic acid  
 (determination of iron, copper and palladium in pharmaceutical preps. by  
 spectrophotometry using aurintricarboxylic acid)  
 RN 4431-00-9 HCAPLUS  
 CN Benzoic acid, 3,3'-[(3-carboxy-4-oxo-2,5-cyclohexadien-1-  
 ylidene)methylene]bis[6-hydroxy- (CA INDEX NAME)



CC 64-4 (Pharmaceutical Analysis)  
 IT 7439-89-6, Iron, analysis 7440-05-3, Palladium, analysis  
 7440-50-8, Copper, analysis  
 (determination of iron, copper and palladium in pharmaceutical preps. by  
 spectrophotometry using aurintricarboxylic acid)  
 IT 4431-00-9, Aurintricarboxylic acid  
 (determination of iron, copper and palladium in pharmaceutical preps. by  
 spectrophotometry using aurintricarboxylic acid)

L49 ANSWER 10 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1994:207456 HCAPLUS Full-text

DOCUMENT NUMBER: 120:207456

ORIGINAL REFERENCE NO.: 120:36455a,36458a

TITLE: Eriochrome Azurol G (CAG) as a spectrophotometric  
 analytical reagent

AUTHOR(S): Gorka, Piotr; Kowalski, Stanislaw

CORPORATE SOURCE: Silesian Tech. Univ., Gliwice, Pol.

SOURCE: Zeszyty Naukowe Politechniki Slaskiej, Chemia (1993), 1145(127), 81-9

CODEN: ZNSCAM; ISSN: 0372-9494

DOCUMENT TYPE: Journal

LANGUAGE: Polish

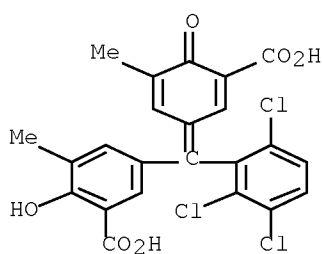
ED Entered STN: 16 Apr 1994

AB The usability of CAG as spectrophotometric anal. reagent was based on  
 comparison of the method of Y determination with CAG and with similar reagents  
 such as Chrome Azurol S, Eriochrome Cyanine R, and Eriochrome Azurol B in a  
 binary system metal-CAG and with addition of cetyltrimethylammonium bromide.  
 Conditions for spectrophotometric determination of Ti(IV), Fe(III), Pd(II),  
 Co(II), and Ni(II) were also established.

IT 3267-40-1, Eriochrome Azurol G  
 (as spectrophotometric reagent)

RN 3267-40-1 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-  
 ylidene)(2,3,6-trichlorophenyl)methyl]-2-hydroxy-3-methyl-, sodium  
 salt (1:2) (CA INDEX NAME)



●2 Na

IT 7440-05-3, Palladium, analysis  
 (determination of, Eriochrome Azurol G in spectrophotometric)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

CC 79-3 (Inorganic Analytical Chemistry)  
 IT 3267-40-1, Eriochrome Azurol G  
 (as spectrophotometric reagent)  
 IT 7439-89-6, Iron, analysis 7440-02-0, Nickel, analysis  
 7440-05-3, Palladium, analysis 7440-32-6, Titanium, analysis  
 7440-48-4, Cobalt, analysis 7440-65-5, Yttrium, analysis  
 (determination of, Eriochrome Azurol G in spectrophotometric)

L49 ANSWER 11 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1991:16758 HCAPLUS Full-text

DOCUMENT NUMBER: 114:16758

ORIGINAL REFERENCE NO.: 114:2839a,2842a

TITLE: Study on chromogenic reaction of palladium(II)  
 with Chrome Azurol B-cetyldimethylammonium  
 acetate-Triton X-100 and its application

AUTHOR(S): Yang, Dingguo

CORPORATE SOURCE: Dep. Text. Chem., Northwest Text. Inst., Xian,  
 710048, Peop. Rep. China

SOURCE: Fenxi Shiyanshi (1990), 9(3), 66-7

CODEN: FENSE4; ISSN: 1000-0720

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

ED Entered STN: 12 Jan 1991

AB Pd was determined in Pd concs. by measuring the absorbance at 345 nm of the complex formed by reaction with Chrome Azurol S (I) in presence of cetyldimethyl(carboxymethyl)ammonium chloride (II) and Triton X-100 (III) in pH 6.8 phthalate buffer solution. The absorbance was measured 20 min after the mixing of the reagents. The molar absorptivity of Pd-I-II-III complex was  $1.3 \times 10^5$  L/mol/cm. The ratio of Pd:I was 1:1 in the complex. There was no finite composition of II and III in the complex. The absorbance was stable

10/530,790

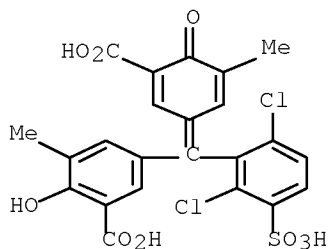
for 24 h. Beer's law was obeyed in the concentration range 0-4.0 µg Pd/25 mL.

The relative error was ≤5%.

IT 7440-05-3, Palladium, analysis  
(determination of, in palladium concs. by spectrophotometry)  
RN 7440-05-3 HCAPLUS  
CN Palladium (CA INDEX NAME)

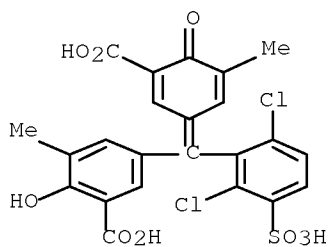
Pd

IT 1667-99-8, Chrome Azurol S  
(in palladium determination by spectrophotometry)  
RN 1667-99-8 HCAPLUS  
CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulphophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

IT 3564-17-8D, palladium complex 7440-05-3D,  
Palladium, Chrome Azurol S complex  
(molar absorptivity of)  
RN 3564-17-8 HCAPLUS  
CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulphophenyl)methyl]-2-hydroxy-3-methyl- (CA INDEX NAME)



RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

Pd

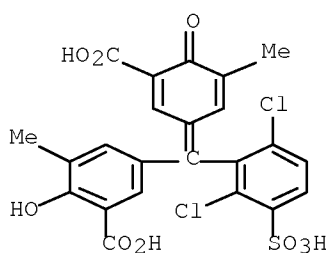
CC 79-6 (Inorganic Analytical Chemistry)  
 IT 7440-05-3, Palladium, analysis  
 (determination of, in palladium concs. by spectrophotometry)  
 IT 1667-99-8, Chrome Azurol S 9002-93-1, Triton X-100  
 24000-75-7  
 (in palladium determination by spectrophotometry)  
 IT 3564-17-8D, palladium complex 7440-05-3D,  
 Palladium, Chrome Azurol S complex  
 (molar absorptivity of)  
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS  
 RECORD (1 CITINGS)

L49 ANSWER 12 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1990:228948 HCAPLUS Full-text  
 DOCUMENT NUMBER: 112:228948  
 ORIGINAL REFERENCE NO.: 112:38411a,38414a  
 TITLE: Determination of palladium in catalyst using  
 palladium(II)-Chrome Azurol S-zephiramine system  
 AUTHOR(S): Huang, Dejiang; Guo, Jin  
 CORPORATE SOURCE: Beijing Inst. Chem. Technol., Beijing, Peop. Rep.  
 China  
 SOURCE: Huaxue Shiji (1989), 11(6), 373-4  
 CODEN: HUSHDR; ISSN: 0258-3283  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese  
 ED Entered STN: 09 Jun 1990  
 AB Pd(II) reacts with Chrome Azurol S and zephiramine to form a ternary complex  
 and Pd was determined by measuring the absorbances of the complex at 620 nm  
 (molar absorptivity  $6.5 + 104 \text{ L mol}^{-1} \text{ cm}^{-1}$ ). Beer's law is obeyed for 0-04  $\mu\text{g}$   
 Pd/25 mL. Pd was determined in catalysts by the method and the results were  
 satisfactory.  
 IT 7440-05-3, Palladium, analysis  
 (determination of, by spectrophotometry)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

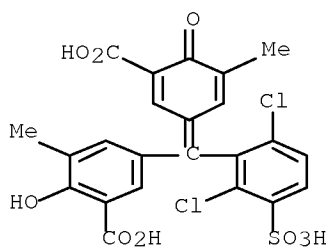
IT 1667-99-8, Chrome Azurol S  
 (in palladium determination by spectrophotometry)  
 RN 1667-99-8 HCAPLUS  
 CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulphophenyl)methyl]-2-hydroxy-3-methyl-,  
 sodium salt (1:3) (CA INDEX NAME)





●3 Na

IT 3564-17-8D, complex with palladium zephiramine  
 7440-05-3D, Palladium, ternary complex with Chrome Azurol S  
 and zephiramine  
 (spectrum of)  
 RN 3564-17-8 HCAPLUS  
 CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene) (2,6-dichloro-3-sulfophenyl)methyl]-2-hydroxy-3-methyl- (CA INDEX NAME)



RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

CC 79-6 (Inorganic Analytical Chemistry)  
 IT 7440-05-3, Palladium, analysis  
 (determination of, by spectrophotometry)  
 IT 139-08-2, Zephiramine 1667-99-8, Chrome Azurol S  
 (in palladium determination by spectrophotometry)  
 IT 3564-17-8D, complex with palladium zephiramine  
 7440-05-3D, Palladium, ternary complex with Chrome Azurol S  
 and zephiramine 16287-71-1D, Zephiramine ion, complex with palladium  
 and Chrome Azurol S  
 (spectrum of)  
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS  
 RECORD (1 CITINGS)

L49 ANSWER 13 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1990:210150 HCAPLUS Full-text

DOCUMENT NUMBER: 112:210150

ORIGINAL REFERENCE NO.: 112:35299a,35302a

TITLE: A sensitive spectrophotometric method for the  
determination of palladium with Eriochrome Azurol  
G and cetyltrimethylammonium chloride

AUTHOR(S): Uesugi, Katsuya; Miyawaki, Mitsuo

CORPORATE SOURCE: Dep. Chem., Himeji Inst. Technol., Himeji, 671-22,  
JapanSOURCE: Microchemical Journal (1990), 41(1),  
78-83

CODEN: MICJAN; ISSN: 0026-265X

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 26 May 1990

AB A sensitive spectrophotometric method for the determination of palladium was  
studied, using Eriochrome Azurol G (EAG) as a reagent. Palladium reacts very  
sensitively with EAG in the presence of cetyltrimethylammonium chloride (CTMA)  
to form a blue complex. The palladium complex has maximum absorbance at pH  
3.5-4.8 and at 645 nm. Beer's law is obeyed over the range 0.1-1.6 ppm  
palladium. The molar absorptivity is 73,800 L mol<sup>-1</sup> cm<sup>-1</sup> at 645 nm. The mole  
ratio of palladium and EAG in the complex is estimated to be 1:3 in the  
presence of CTMA. Only scandium interferes when sodium fluoride is used as a  
masking agent.

IT ~~7440-05-3D~~, Palladium, Eriochrome Azurol G complex, ion  
associate with cetyltrimethylammonium ~~25747-13-1D~~, palladium  
complex, ion associate with cetyltrimethylammonium  
(UV-visible absorption spectrum of)

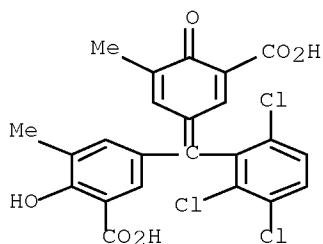
RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

Pd

RN 25747-13-1 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-  
ylidene)(2,3,6-trichlorophenyl)methyl]-2-hydroxy-3-methyl- (CA INDEX  
NAME)



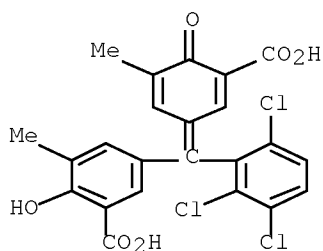
IT ~~7440-05-3~~, Palladium, analysis  
(determination of, by spectrophotometry)

RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

Pd

IT 3267-40-1, Eriochrome Azurol G  
 (in determination of palladium by spectrophotometry)  
 RN 3267-40-1 HCAPLUS  
 CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,3,6-trichlorophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:2) (CA INDEX NAME)



● 2 Na

CC 79-6 (Inorganic Analytical Chemistry)  
 IT 6899-10-1D, Cetyltrimethylammonium, ion associate with palladium-Eriochrome Azurol G complex 7440-05-3D, Palladium, Eriochrome Azurol G complex, ion associate with cetyltrimethylammonium 25747-13-1D, palladium complex, ion associate with cetyltrimethylammonium (UV-visible absorption spectrum of)  
 IT 7440-05-3, Palladium, analysis (determination of, by spectrophotometry)  
 IT 112-02-7, Cetyltrimethylammonium chloride 3267-40-1, Eriochrome Azurol G (in determination of palladium by spectrophotometry)  
 OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L49 ANSWER 14 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1989:146801 HCAPLUS Full-text  
 DOCUMENT NUMBER: 110:146801  
 ORIGINAL REFERENCE NO.: 110:24055a,24058a  
 TITLE: Spectrophotometric study on the color reaction of complex of palladium with Chrome Azurol B and cetyltrimethylammonium bromide  
 AUTHOR(S): Yang, Dingguo; Wu, Yunping  
 CORPORATE SOURCE: Dep. Text. Chem., North-West Inst. Text., Xian, Peop. Rep. China  
 SOURCE: Fenxi Huaxue (1988), 16(7), 651-3  
 CODEN: FHHHDT; ISSN: 0253-3820  
 DOCUMENT TYPE: Journal

LANGUAGE: Chinese

ED Entered STN: 15 Apr 1989

AB A color reaction of palladium with Chrome Azurol B (CAB) and cetyltrimethylammonium bromide (CTMAB) has been studied spectrophotometrically. In a buffer solution of  $\text{KHC}_8\text{H}_4\text{O}_4\text{-NaOH}$  (pH 6.8), Pd forms a green complex with CAB and CTMAB. The molar absorptivity of the complex is  $8.1 \times 10^4 \text{ L mol}^{-1} \text{ cm}^{-1}$  at 635 nm. The composition ratio of Pd to CAB to CTMAB is 1:1:3. Beer's law is obeyed for Pd in the range of 0-22  $\mu\text{g}/25 \text{ mL}$ . The method is simple and highly selective and has been successfully applied to the determination of Pd in ores.

IT 7440-05-3, Palladium, analysis  
(determination of, by spectrophotometry)

RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

Pd

IT 7440-05-3D, Palladium, Chrome Azurol B complex, ion associate with cetyltrimethylammonium 15012-28-9, Chrome Azurol B  
(in palladium determination by spectrophotometry)

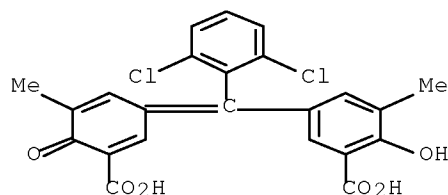
RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

Pd

RN 15012-28-9 HCAPLUS

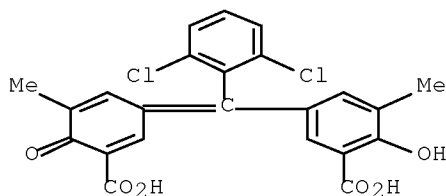
CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichlorophenyl)methyl]-2-hydroxy-3-methyl- (CA INDEX NAME)



IT 15012-28-9D, palladium complex, ion associate with cetyltrimethylammonium  
(spectrum of)

RN 15012-28-9 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichlorophenyl)methyl]-2-hydroxy-3-methyl- (CA INDEX NAME)



CC 79-6 (Inorganic Analytical Chemistry)  
 IT 7440-05-3, Palladium, analysis  
 (determination of, by spectrophotometry)  
 IT 57-09-0, Cetyltrimethylammonium bromide 7440-05-3D,  
 Palladium, Chrome Azurol B complex, ion associate with  
 cetyltrimethylammonium 15012-28-9, Chrome Azurol B  
 (in palladium determination by spectrophotometry)  
 IT 15012-28-9D, palladium complex, ion associate with  
 cetyltrimethylammonium  
 (spectrum of)

L49 ANSWER 15 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1986:526332 HCAPLUS Full-text

DOCUMENT NUMBER: 105:126332

ORIGINAL REFERENCE NO.: 105:20227a,20230a

TITLE: Color reaction of the ternary complex of palladium  
 with Chrome Azurol S and cationic surfactant

AUTHOR(S): Sum, Shusheng; Li, Li

CORPORATE SOURCE: Beijing Univ., Beijing, Peop. Rep. China

SOURCE: Fenxi Ceshi Tongbao (1985), 4(3), 14-17

CODEN: FCTOE8; ISSN: 1000-3800

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

ED Entered STN: 03 Oct 1986

AB The color reactions of Pd(II), Chrome Azurol S (I) and alkyltrimethylammonium  
 bromide, where alkyl is dodecyl, tetradecyl, hexadecyl (II) and octadecyl  
 (III) in HOAc-NaOAc buffer solution at pH .apprx.5 were studied. Among the  
 examined surfactants, II and III showed higher sensitivity for the color  
 reaction with molar absorptivities (at absorption maximum 636 nm) of  $1.3 \times 10^5$   
 and  $1.19 \times 10^5$  L mol<sup>-1</sup> cm<sup>-1</sup>, resp. Beer's law was obeyed in the range 0-25 µg  
 Pd/25 mL in the presence of II. Ni and Pt(IV) also form complexes with I and  
 II with absorption maximum at 512 and 587 nm, resp., thus, Pd can be  
 determined in the presence of Ni and Pt(IV) without the interferences.

IT 7440-05-3, analysis  
 (determination of, Chrome Azurol S and cationic surfactants in  
 spectrophotometric)

RN 7440-05-3 HCAPLUS

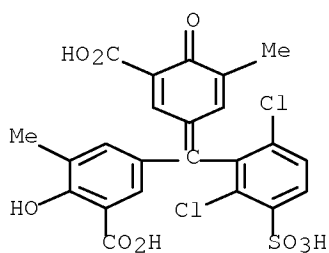
CN Palladium (CA INDEX NAME)

Pd

IT 1667-99-8  
 (in determination of palladium by spectrophotometry)

RN 1667-99-8 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulphophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:3) (CA INDEX NAME)

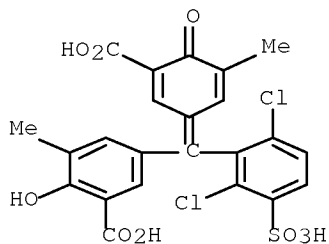


●3 Na

IT 3564-17-8D, palladium complex, alkyltrimethylammonium bromide ion associate 7440-05-3D, Chrome Azurol S complex, alkyltrimethylammonium bromide ion associate (spectra of)

RN 3564-17-8 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulphophenyl)methyl]-2-hydroxy-3-methyl- (CA INDEX NAME)



RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

Pd

CC 79-6 (Inorganic Analytical Chemistry)

IT 7440-05-3, analysis (determination of, Chrome Azurol S and cationic surfactants in spectrophotometric)

IT 57-09-0 1119-94-4 1119-97-7 1120-02-1 1667-99-8 (in determination of palladium by spectrophotometry)

IT 3564-17-8D, palladium complex, alkyltrimethylammonium bromide ion associate 6899-10-1D, ion associate with palladium-Chrome

10/530,790

Azurol S complex 7440-05-3D, Chrome Azurol S complex,  
alkyltrimethylammonium bromide ion associate 15461-40-2D, ion associate  
with palladium-Chrome Azurol S complex  
(spectra of)

L49 ANSWER 16 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1986:417573 HCAPLUS Full-text

DOCUMENT NUMBER: 105:17573

ORIGINAL REFERENCE NO.: 105:2789a,2792a

TITLE: Resin spot test technique for simultaneous  
microgram detection of nitrogen- and  
sulfur-containing organic compounds

AUTHOR(S): Grdinic, Vladimir; Spoljaric, Gordana; Oresic,  
Laila Stefanini

CORPORATE SOURCE: Fac. Pharm. Biochem., Univ. Zagreb, Zagreb,  
Yugoslavia

SOURCE: Acta Pharmaceutica Jugoslavica (1985),  
35(4), 265-74

CODEN: APJUA8; ISSN: 0001-6667

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 13 Jul 1986

AB Simple, reliable, and sensitive detection of N and S in organic compds. by the  
resin spot test technique is described. N is identified as cyanide with Pd-  
PAR resin. The identification of S as sulfide, is based on the catalytically  
enhanced reduction of I with sulfide on the resin. N and S together are  
identified as Fe(III)-thiocyanate complex on the resin. Amberlite IRA-400, in  
the Pd-PAR and chloride form, is used as the suitable resin. The limits of  
detection, concentration, dilution, and the exponent of sensitivity are  
presented for 4 anal. systems. The anal. procedure was tested on 72 substances  
and the information contents were compared.

IT 7440-05-3D, pyridylazoresorcinol complex  
(Amberlite IRA-400 modified with, in detection of nitrogen- and  
sulfur-containing organic compds. by spot test)

RN 7440-05-3 HCAPLUS

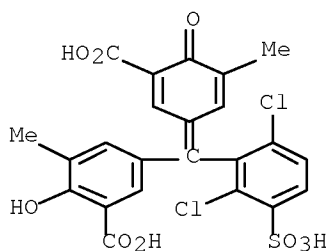
CN Palladium (CA INDEX NAME)

Pd

IT 1667-99-8  
(detection of, resin spot test for)

RN 1667-99-8 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-  
ylidene)(2,6-dichloro-3-sulphophenyl)methyl]-2-hydroxy-3-methyl-,  
sodium salt (1:3) (CA INDEX NAME)



●3 Na

CC 80-5 (Organic Analytical Chemistry)  
 IT 1141-59-9D, palladium complex 7440-05-3D,  
 pyridylazoresorcinol complex  
 (Amberlite IRA-400 modified with, in detection of nitrogen- and  
 sulfur-containing organic compds. by spot test)  
 IT 50-44-2 52-26-6 54-85-3 57-67-0 59-88-1 60-10-6 60-11-7  
 60-35-5, analysis 60-56-0 62-55-5 62-56-6, analysis 63-74-1  
 66-32-0 66-71-7 68-35-9 71-73-8 72-14-0 79-19-6 79-40-3  
 85-41-6 85-85-8 88-74-4 91-56-5 93-42-5 97-05-2 97-52-9  
 97-77-8 98-96-4 99-61-6 99-65-0 99-99-0 100-02-7, analysis  
 100-19-6 103-84-4 106-47-8, analysis 110-85-0, analysis  
 120-72-9, analysis 121-89-1 125-30-4 127-69-5 127-79-7  
 130-22-3 130-89-2 131-91-9 140-89-6 147-85-3, analysis  
 148-18-5 148-24-3, analysis 148-25-4 149-45-1 316-42-7  
 328-39-2 366-18-7 496-74-2 526-08-9 536-17-4 536-33-4  
 541-69-5 546-88-3 548-62-9 556-88-7 580-15-4 598-41-4  
 885-11-0 912-60-7 1083-48-3 ~~1667-99-8~~ 2218-94-2  
 2637-34-5 5349-80-4 5469-69-2 6968-22-5 7283-41-2  
 7704-34-9D, organic compds. 7727-37-9D, organic compds. 7775-14-6  
 25486-11-7  
 (detection of, resin spot test for)

L49 ANSWER 17 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1986:230569 HCAPLUS Full-text

DOCUMENT NUMBER: 104:230569

ORIGINAL REFERENCE NO.: 104:36483a,36486a

TITLE: Application of xanthine derivatives for analytical  
 chemistry. Part XLVI. A color reaction of  
 1,2-diphenols based on colored complex formation  
 with phenylfluorone and iron(III) and its  
 application to the assay of catecholamines in  
 pharmaceutical preparations

AUTHOR(S): Fujita, Yoshikazu; Mori, Itsuo; Fujita, Kinuko;  
 Kitano, Shoko; Tanaka, Takeshi

CORPORATE SOURCE: Osaka Coll. Pharm., Osaka, 580, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1985  
 ), 33(12), 5385-92  
 CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 27 Jun 1986

AB The color reaction between 1,2-diphenols, xanthine dye phenylfluorone (I)  
 [975-17-7] and Fe(III) was used for the spectrophotometric determination (630  
 nm) of the diphenols. The optimum and stable color absorbance of the complex



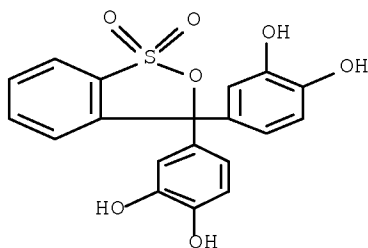
was observed at pH 8.9-9.9. Sensitivity was the highest with 5% Brij 35 [9002-92-0]. The use of 1:1 I-Fe(III) ratio was the best in terms of reactivity and stability at room temperature among metal ions examined, Cu(II) and Fe(II) interfered with the anal.; phosphate and citrate gave pos. errors and oxine, salicylic acid albumin and chondroitin sulfate gave neg. errors. The 1,2-diphenolic function with free adjacent positions was essential for the formation of the colored complex. The molar absorptivity of norepinephrine [51-41-2], a catecholamine, was  $1.7 \times 10^5 \text{ dm}^3 \text{ mol}^{-1} \text{ cm}^{-1}$ . The method was also used for the anal. of norepinephrine and DOPA [59-92-7] in injections, isoproterenol [7683-59-2] in capsules and methyl-DOPA [555-30-6] in tablets (recoveries 95-102%). A color test is described for the detection of catecholamine on a spot plate.

IT 115-41-3 1667-99-8

(diphenols determination by spectrophotometry with iron and)

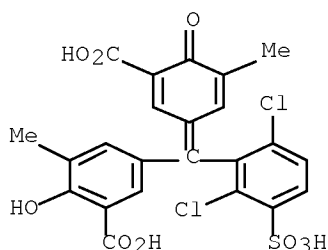
RN 115-41-3 HCAPLUS

CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-(CA INDEX NAME)



RN 1667-99-8 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulphophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

IT 7440-05-3, uses and miscellaneous

(diphenols determination by spectrophotometry with organic reagents in relation to)

RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

Pd

CC 64-3 (Pharmaceutical Analysis)  
 Section cross-reference(s): 1, 9  
 IT 66-71-7 115-41-3 130-22-3 148-25-4 1141-59-9  
 1667-99-8 1668-00-4 2103-64-2 2320-44-7 32638-88-3  
 (diphenols determination by spectrophotometry with iron and)  
 IT 13408-62-3 7429-90-5, uses and miscellaneous 7439-96-5, uses and  
 miscellaneous 7439-98-7, uses and miscellaneous 7440-04-2, uses  
 and miscellaneous 7440-05-3, uses and miscellaneous  
 7440-32-6, uses and miscellaneous 7440-45-1, uses and miscellaneous  
 7440-48-4, uses and miscellaneous 7440-50-8, uses and miscellaneous  
 7440-56-4, uses and miscellaneous 7440-62-2, uses and miscellaneous  
 7440-66-6, uses and miscellaneous 7440-69-9, uses and miscellaneous  
 (diphenols determination by spectrophotometry with organic reagents in  
 relation to)  
 OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS  
 RECORD (2 CITINGS)

L49 ANSWER 18 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1986:56803 HCAPLUS Full-text

DOCUMENT NUMBER: 104:56803

ORIGINAL REFERENCE NO.: 104:9053a,9056a

TITLE: Micelle solubilizing effect of sodium  
 dodecylsulfate on color reactions between  
 Eriochrome Azurol B and metal ions

AUTHOR(S): Zheng, Yongxi; Chen, Depu

CORPORATE SOURCE: Dep. Chem. Chem. Eng., Tsinghus Univ., Beijing,  
 Peop. Rep. China

SOURCE: Huaxue Xuebao (1985), 43(9), 868-72  
 CODEN: HHHPA4; ISSN: 0567-7351

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

ED Entered STN: 23 Feb 1986

AB Color reactions of Be, Al, Cu(II), and Pd(II) with Eriochrome Azurol B were  
 enhanced by solubilization in SDS micelles. There is no H bonding between SDS  
 and the dye over a wide pH range. The neg. elec. field of SDS inhibits dye  
 ionization increasing pKa values (2.65-3.57, 4.65-5.45, 11.8-12.20 for pKa1,  
 pKa2, pKa3, resp.). The Be:dye ratio in the complex increased from 1:1 to 1:2  
 in the presence of CTAB, but SDS left the ratio unchanged at 1:1.

IT 7440-05-3, reactions  
 (color reaction of divalent, with Eriochrome Azurol B, in SDS  
 micelles)

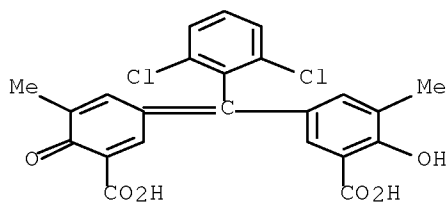
RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

Pd

IT 1796-92-5  
 (color reactions of, in SDS micelles)  
 RN 1796-92-5 HCAPLUS  
 CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-  
 ylidene)(2,6-dichlorophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt

(1:2) (CA INDEX NAME)



●2 Na

CC 66-2 (Surface Chemistry and Colloids)  
 Section cross-reference(s): 79

IT 7440-05-3, reactions 7440-50-8, reactions  
 (color reaction of divalent, with Eriochrome Azurol B, in SDS micelles)

IT 1796-92-5  
 (color reactions of, in SDS micelles)

L49 ANSWER 19 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1983:432452 HCAPLUS Full-text

DOCUMENT NUMBER: 99:32452

ORIGINAL REFERENCE NO.: 99:4975a, 4978a

TITLE: Spectrophotometric method for determining palladium(II) using Eriochrome Azurol B and cetyltrimethylammonium bromide

AUTHOR(S): Gregorowicz, Z.; Gorka, P.; Kowalski, S.; Cebula, J.

CORPORATE SOURCE: Inst. Anal. Gen. Chem., Silesian Tech. Univ., Gliwice, Pol.

SOURCE: Mikrochimica Acta (1983), 2(3-4), 181-6  
 CODEN: MIACAQ; ISSN: 0026-3672

DOCUMENT TYPE: Journal

LANGUAGE: German

ED Entered STN: 12 May 1984

AB Pd(II) was determined spectrophotometrically by reaction with Eriochrome Azurol B (I) and cetyltrimethylammonium bromide (II) at pH 5.5 to form a ternary 1:2:4 (Pd-I-II) complex. The absorbance was measured at 645 nm (molar absorptivity =  $1.15 \times 10^5$ ). Beer's law was obeyed for 2-10  $\mu\text{g}$  Pd/10 mL. The sensitivity was  $0.93 \times 10^{-3}$  Pd/cm<sup>2</sup>. The stability of the complex was 6.3  $\times 10^{11}$ . The effect of diverse ions was studied.

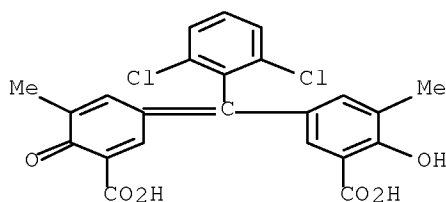
IT 7440-05-3, analysis  
 (determination of, cetyltrimethylammonium bromide and eriochrome Azurol B in spectrophotometric)

RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

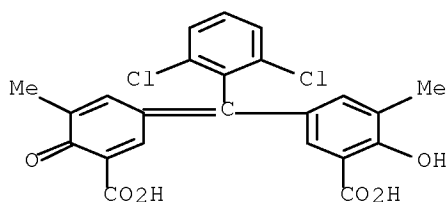
Pd

IT 1796-92-5  
 (in palladium determination by spectrophotometry)  
 RN 1796-92-5 HCAPLUS  
 CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichlorophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

IT 1796-92-5D, palladium complex 7440-05-3D,  
 cetyltrimethylammonium and Eriochrome Azural B complex  
 (spectrum and stability constant of)  
 RN 1796-92-5 HCAPLUS  
 CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichlorophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

CC 79-6 (Inorganic Analytical Chemistry)  
 IT 7440-05-3, analysis  
 (determination of, cetyltrimethylammonium bromide and eriochrome Azural B in spectrophotometric)

IT 57-09-0 1796-92-5  
 (in palladium determination by spectrophotometry)  
 IT 1796-92-5D, palladium complex 6899-10-1D, palladium  
 complex 7440-05-3D, cetyltrimethylammonium and Eriochrome  
 Azural B complex  
 (spectrum and stability constant of)

L49 ANSWER 20 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1983:190870 HCAPLUS Full-text  
 DOCUMENT NUMBER: 98:190870  
 ORIGINAL REFERENCE NO.: 98:28803a,28806a  
 TITLE: Ternary complexes of some elements with catechol  
 violet and cetyltrimethylammonium  
 AUTHOR(S): Tikhonov, V. N.; Mikhailova, A. M.; Myasnikova, I.  
 A.; Vanyurkina, V. I.  
 CORPORATE SOURCE: Chuvash State Univ., Cheboksary, USSR  
 SOURCE: Zhurnal Analiticheskoi Khimii (1983),  
 38(2), 216-20  
 CODEN: ZAKHA8; ISSN: 0044-4502  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian

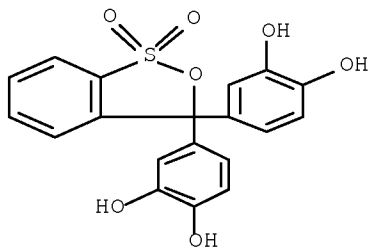
ED Entered STN: 12 May 1984

AB The metals M (Cu(II), Bi, V(IV), Mo, W, Fe(III), and Pd) can be determined  
 spectrophotometrically as their ternary complexes with catechol violet (I) and  
 cetyltrimethylammonium(II) at  $\lambda_{\max}$  600-680 nm and molar absorptivities of  
 (2.4-5.3)  $\times 10^4$ . V(IV) and Fe(III) form complex with M:I:II ratios of 1:2:2,  
 and the others, complexes with 1:1:2 ratios. The permissible levels of 15  
 other elements and anions for these detns. are tabulated.

IT 115-41-3D, transition metal complexes  
 (catechol violet and cetyltrimethylammonium ternary complexes,  
 spectra of)

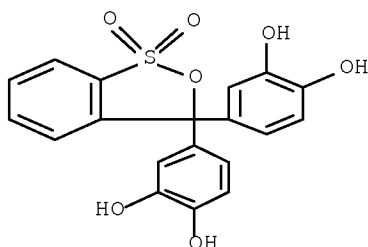
RN 115-41-3 HCAPLUS

CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-  
 (CA INDEX NAME)



IT 7440-05-3, analysis  
 (determination of, catechol violet and cetyltrimethylammonium in  
 spectrophotometric)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

IT 115-41-3  
 (in transition metal determination by spectrophotometry)  
 RN 115-41-3 HCAPLUS  
 CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-  
 (CA INDEX NAME)



IT 7440-05-3D, catechol violet and cetyltrimethylammonium  
 ternary complex  
 (spectrum of)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

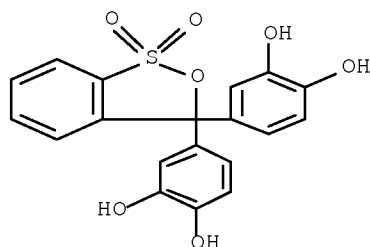
CC 79-6 (Inorganic Analytical Chemistry)  
 Section cross-reference(s): 73  
 IT 115-41-3D, transition metal complexes  
 (catechol violet and cetyltrimethylammonium ternary complexes,  
 spectra of)  
 IT 7439-89-6, analysis 7439-98-7, analysis 7440-05-3,  
 analysis 7440-33-7, analysis 7440-50-8, analysis 7440-62-2,  
 analysis 7440-69-9, analysis  
 (determination of, catechol violet and cetyltrimethylammonium in  
 spectrophotometric)  
 IT 115-41-3 6899-10-1  
 (in transition metal determination by spectrophotometry)  
 IT 7439-89-6D, catechol violet and cetyltrimethylammonium ternary complex  
 7439-98-7D, catechol violet and cetyltrimethylammonium ternary complex  
 7440-05-3D, catechol violet and cetyltrimethylammonium ternary  
 complex 7440-33-7D, catechol violet and cetyltrimethylammonium  
 ternary complex 7440-50-8D, catechol violet and  
 cetyltrimethylammonium ternary complex 7440-62-2D, catechol violet  
 and cetyltrimethylammonium ternary complex 7440-69-9D, catechol  
 violet and cetyltrimethylammonium ternary complex  
 (spectrum of)  
 OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS  
 RECORD (2 CITINGS)

L49 ANSWER 21 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1983:83010 HCAPLUS Full-text  
 DOCUMENT NUMBER: 98:83010

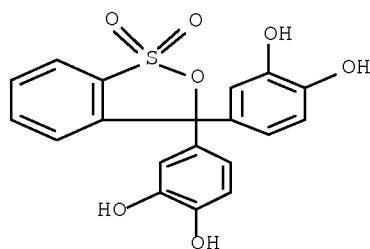
ORIGINAL REFERENCE NO.: 98:12513a,12516a  
 TITLE: Spectrophotometric determination of platinum metals. VII. Determination of palladium with bromopyrogallol red and pyrocatechol violet  
 AUTHOR(S): Egermaierova, J.; Cermakova, L.; Suk, V.  
 CORPORATE SOURCE: Fac. Nat. Sci., Charles Univ., Prague, 128 40/2, Czech.  
 SOURCE: Microchemical Journal (1983), 28(1), 10-19  
 CODEN: MICJAN; ISSN: 0026-265X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 12 May 1984  
 AB Optimum conditions were found for the reaction of Pd(II) with bromopyrogallol red (I) and pyrocatechol violet (II), and the effect of a cationic surfactant, Septonex, on these reactions was investigated. On this basis, new sensitive spectrophotometric detns. of Pd as its complexes with I and II alone or in the presence of Septonex, were developed and evaluated and the effect of other ions was estimated  
 IT 7440-05-3, analysis  
 (determination of, bromopyrogallol red and pyrocatechol violet and Septonex in spectrophotometric)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

IT 115-41-3  
 (in determination of palladium by spectrophotometry)  
 RN 115-41-3 HCAPLUS  
 CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-  
 (CA INDEX NAME)



IT 115-41-3D, palladium complexes, ion assoc. with Septonex  
 7440-05-3D, bromopyrogallol red and pyrocatechol violet complexes, ion assoc. with Septonex  
 (spectra of)  
 RN 115-41-3 HCAPLUS  
 CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-  
 (CA INDEX NAME)



RN 7440-05-3 HCAPLUS  
CN Palladium (CA INDEX NAME)

Pd

CC 79-6 (Inorganic Analytical Chemistry)  
IT 7440-05-3, analysis  
(determination of, bromopyrogallol red and pyrocatechol violet and Septonex  
in spectrophotometric)  
IT 115-41-3 10567-02-9 16574-43-9  
(in determination of palladium by spectrophotometry)  
IT 115-41-3D, palladium complexes, ion assoc. with Septonex  
7440-05-3D, bromopyrogallol red and pyrocatechol violet  
complexes, ion assoc. with Septonex 14565-92-5D, ion assoc. with  
palladium complexes with bromopyrogallol red and pyrocatechol violet  
16574-43-9D, palladium complexes, ion assoc. with Septonex  
(spectra of)  
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS  
RECORD (1 CITINGS)

L49 ANSWER 22 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 1983:82865 HCAPLUS Full-text  
DOCUMENT NUMBER: 98:82865  
ORIGINAL REFERENCE NO.: 98:12493a,12496a  
TITLE: Spectrophotometric studies of the formation of  
complexes of some metals with Chromazurol S  
AUTHOR(S): Tikhonov, V. N.  
CORPORATE SOURCE: I. N. Ul'yanov Chuvash State Univ., Cheboksary,  
USSR  
SOURCE: Zhurnal Analiticheskoi Khimii (1982),  
37(11), 1960-5  
CODEN: ZAKHA8; ISSN: 0044-4502  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
ED Entered STN: 12 May 1984  
AB The color reactions of Chromazurol S with Cu(II), Be, Ti(IV), Zr, V(IV),  
Fe(III), and Pd(II) were studied. The optimum pH of complexation (4.4-6.8),  
metal/ligand ratios (1:1 and 2:1), and spectral characteristics of the  
complexes ( $\lambda_{\max} = 535-610$ ,  $\epsilon = 1.40 + 104-6.46 + 104$ ) are given. The effect  
of acetates and acidity on the absorbance of the complexes was studied. The  
conditions for photometric detns. of the metals are discussed, e.g. the buffer  
types.  
IT 7440-05-3, analysis



10/530,790

(determination of, by spectrophotometry, Chromazurol S in)

RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

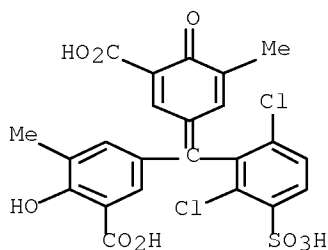
Pd

IT 1667-99-8DP, metal complexes

(formation and spectra of)

RN 1667-99-8 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulphophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

IT 7440-05-3DP, Chromazurol S complexes

(formation and spectrum of)

RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

Pd

CC 79-1 (Inorganic Analytical Chemistry)

Section cross-reference(s): 68

IT 7439-89-6, analysis 7440-05-3, analysis 7440-32-6, analysis 7440-41-7, analysis 7440-50-8, analysis 7440-62-2, analysis 7440-67-7, analysis

(determination of, by spectrophotometry, Chromazurol S in)

IT 1667-99-8DP, metal complexes

(formation and spectra of)

IT 7439-89-6DP, Chromazurol S complexes 7440-05-3DP, Chromazurol S complexes 7440-32-6DP, Chromazurol S complexes 7440-41-7DP, Chromazurol S complexes 7440-50-8DP, Chromazurol S complexes 7440-62-2DP, Chromazurol S complexes 7440-67-7DP, Chromazurol S complexes

(formation and spectrum of)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS

L49 ANSWER 23 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1982:228139 HCAPLUS Full-text

DOCUMENT NUMBER: 96:228139

ORIGINAL REFERENCE NO.: 96:37577a,37580a

TITLE: Palladium ternary complex with Chrome Azurol S and cetyltrimethylammonium bromide and cetylpyridinium bromide

AUTHOR(S): Kant, Ravi; Srivastava, Rajesh; Prakash, Om

CORPORATE SOURCE: Dep. Chem., Univ. Allahabad, Allahabad, India

SOURCE: Croatica Chemica Acta (1981), 54(4), 465-72

CODEN: CCACAA; ISSN: 0011-1643

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 12 May 1984

AB Formation of green ternary complexes of Pd with Chrome Azurol S (I) and cetyltrimethylammonium (CTA) bromide or cetylpyridinium (CP) bromide at pH 4.6-5.6 is described. The Pd-I-CTA or CP ratio in the complexes is 1:1:2 as established by Job's method of continuous variations and by the mol ratio method using absorbance data. Strict control of exptl. conditions is essential for employing these methods for the determination of composition. The ternary systems obey Beer's law for 0.053-2.98 ppm Pd. A high molar absorptivity (Pd-I-CTA,  $5.25 \times 10^4$ ; Pd-I-CP,  $6.16 \times 10^4$  mol<sup>-1</sup> cm<sup>-1</sup>) and Sandell sensitivity (0.002 µg cm<sup>2</sup>) were obtained at 620 nm. A spectrophotometric method is proposed using these ternary complexes for microdetn. of Pd. The method is sensitive, precise, and selective. The effect of various cations and anions was studied. The mode of formation and structures of the ternary complexes are discussed.

IT 7440-05-3, analysis  
(determination of, Chrome Azurol S and cetyltrimethylammonium or cetylpyridinium bromide in spectrophotometric)

RN 7440-05-3 HCAPLUS

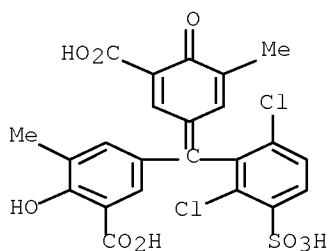
CN Palladium (CA INDEX NAME)

Pd

IT 1667-99-8  
(in determination of palladium by spectrophotometry)

RN 1667-99-8 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulphophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:3) (CA INDEX NAME)



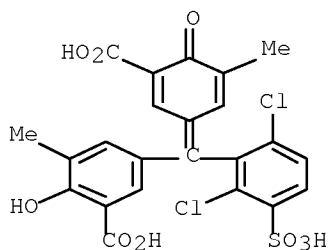
●3 Na

CC 79-6 (Inorganic Analytical Chemistry)  
 IT 7440-05-3, analysis  
 (determination of, Chrome Azurol S and cetyltrimethylammonium or  
 cetylpyridinium bromide in spectrophotometric)  
 IT 57-09-0 140-72-7 1667-99-8  
 (in determination of palladium by spectrophotometry)

L49 ANSWER 24 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1981:218950 HCAPLUS Full-text  
 DOCUMENT NUMBER: 94:218950  
 ORIGINAL REFERENCE NO.: 94:35675a,35678a  
 TITLE: Spectrophotometric study of ternary complexes of  
 some metals with Chromazurol S and  
 cetyltrimethylammonium  
 AUTHOR(S): Tikhonov, V. N.; Aleksandrova, N. P.  
 CORPORATE SOURCE: I. N. Ul'yanov Chuvash State Univ., Cheboksary,  
 USSR  
 SOURCE: Zhurnal Analiticheskoi Khimii (1981),  
 36(2), 242-7  
 CODEN: ZAKHA8; ISSN: 0044-4502  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 ED Entered STN: 12 May 1984  
 AB The formation of ternary complexes of Cu(II), Ti(IV), Zr(IV), V(V), Fe(III),  
 Pd(II) with Chromazurol S (I) and cetyltrimethylammonium (II) was examined  
 The M:I ratio in these compds. was 1:2. A 4-fold excess II is recommended for  
 full color development. A spectrophotometric method was developed for Pd(II)  
 determination in activation solns., which are actually a mixture of H2PdCl4  
 and SnCl2. The effect of Sn is eliminated by the addition of NH4F. Optimum  
 conditions exist at 0.05M NH4F, 0.05% I, 0.1% II, and pH 4.5. A 1000-fold  
 excess Mg and Cd; 400-fold excess Tl(III); 100-fold excess Ca, Sr, Zn and  
 Mn(II); 50-fold excess La and Pb; 10-fold excess Y, Sn(IV), Hg(II), Cr(III),  
 Mo, Co, and Ni; and equal amts. of In and W do not interfere. Equal amts. of  
 Cu, Be, Al, Ga, Sc, Sn(II), Ti(IV), Zr, Bi, V(IV), and Fe(III) interfere.  
 IT 7440-05-3, analysis  
 (determination of, Chromazurol S and cetyltrimethylammonium in  
 spectrophotometric)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

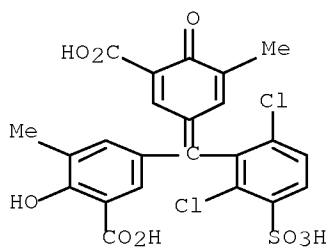
Pd

IT 1667-99-8  
 (in determination of palladium by spectrophotometry)  
 RN 1667-99-8 HCAPLUS  
 CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulfohenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

IT 3564-17-8D, transition metal complexes  
 (spectra of)  
 RN 3564-17-8 HCAPLUS  
 CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulfohenyl)methyl]-2-hydroxy-3-methyl- (CA INDEX NAME)



IT 7440-05-3D, Chromazurol S complexes, ion associate with cetyltrimethylammonium  
 (spectrum of)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

CC 79-6 (Inorganic Analytical Chemistry)  
 IT 7440-05-3, analysis

(determination of, Chromazurol S and cetyltrimethylammonium in spectrophotometric)

IT 57-09-0 1667-99-8

(in determination of palladium by spectrophotometry)

IT 3564-17-8D, transition metal complexes 6899-10-1D, ion associate with transition metal complexes (spectra of)

IT 7439-89-6D, Chromazurol S complexes, ion associate with cetyltrimethylammonium 7440-05-3D, Chromazurol S complexes, ion associate with cetyltrimethylammonium 7440-32-6D, Chromazurol S complexes, ion associate with cetyltrimethylammonium 7440-50-8D, Chromazurol S complexes, ion associate with cetyltrimethylammonium 7440-62-2D, Chromazurol S complexes, ion associate with cetyltrimethylammonium 7440-67-7D, Chromazurol S complexes, ion associate with cetyltrimethylammonium (spectrum of)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L49 ANSWER 25 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1979:432196 HCAPLUS Full-text

DOCUMENT NUMBER: 91:32196

ORIGINAL REFERENCE NO.: 91:5139a,5142a

TITLE: Pyrocatechol violet as a complexometric indicator in the presence of cetyltrimethylammonium

AUTHOR(S): Tikhonov, V. N.; Stepanova, T. Ya.

CORPORATE SOURCE: Chuvash State Univ., Cheboksary, USSR

SOURCE: Zhurnal Analiticheskoi Khimii (1979), 34(3), 426-31

CODEN: ZAKHA8; ISSN: 0044-4502

DOCUMENT TYPE: Journal

LANGUAGE: Russian

ED Entered STN: 12 May 1984

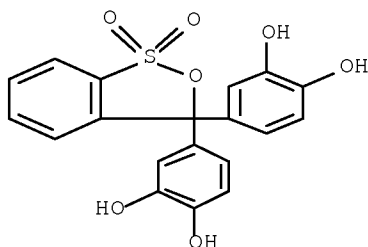
AB Complex formation of 27 elements with pyrocatechol violet (I) in the presence and absence of cetyltrimethylammonium bromide (II) was studied. The use of the ternary complex involving I and II allows a more sensitive and contrasting complexometric titration than with I alone. Procedures were developed for the complexometric determination of Fe in ferromanganese, Cu in alloys, and Al in an antifriction alloy by using I and II mixts. as indicators.

IT 115-41-3

(complexometric indicator system containing cetyltrimethylammonium bromide and)

RN 115-41-3 HCAPLUS

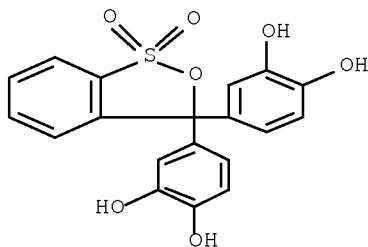
CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis- (CA INDEX NAME)



IT 7440-05-3, analysis  
 (determination of, cetyltrimethylammonium and pyrocatechol violet indicator  
 system in complexometric)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

IT 115-41-3D, metal complexes  
 (spectra of)  
 RN 115-41-3 HCAPLUS  
 CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-  
 (CA INDEX NAME)



IT 7440-05-3D, cetyltrimethylammonium and pyrocatechol violet  
 complex  
 (spectrum of)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

CC 79-3 (Inorganic Analytical Chemistry)  
 IT 115-41-3  
 (complexometric indicator system containing cetyltrimethylammonium  
 bromide and)  
 IT 7440-05-3, analysis 7440-20-2, analysis 7440-55-3,  
 analysis 7440-69-9, analysis 7440-74-6, analysis  
 (determination of, cetyltrimethylammonium and pyrocatechol violet indicator  
 system in complexometric)  
 IT 115-41-3D, metal complexes 6899-10-1D, metal complexes  
 (spectra of)  
 IT 7429-90-5D, cetyltrimethylammonium and pyrocatechol violet complex  
 7439-89-6D, cetyltrimethylammonium and pyrocatechol violet complex  
 7439-98-7D, cetyltrimethylammonium and pyrocatechol violet complex  
 7440-05-3D, cetyltrimethylammonium and pyrocatechol violet  
 complex 7440-20-2D, cetyltrimethylammonium and pyrocatechol violet  
 complex 7440-32-6D, cetyltrimethylammonium and pyrocatechol violet

complex 7440-33-7D, cetyltrimethylammonium and pyrocatechol violet  
 complex 7440-50-8D, cetyltrimethylammonium and pyrocatechol violet  
 complex 7440-55-3D, cetyltrimethylammonium and pyrocatechol violet  
 complex 7440-62-2D, cetyltrimethylammonium and pyrocatechol violet  
 complex 7440-67-7D, cetyltrimethylammonium and pyrocatechol violet  
 complex 7440-69-9D, cetyltrimethylammonium and pyrocatechol violet  
 complex 7440-74-6D, cetyltrimethylammonium and pyrocatechol violet  
 complex

(spectrum of)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS  
 RECORD (1 CITINGS)

L49 ANSWER 26 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1979:158717 HCAPLUS Full-text

DOCUMENT NUMBER: 90:158717

ORIGINAL REFERENCE NO.: 90:25117a, 25120a

TITLE: Development of new extraction agents for  
 separation of rare radioactive elements

AUTHOR(S): Hala, J.; Navratil, O.; Prihoda, J.; Smola, J.

CORPORATE SOURCE: Prir. Fak., Univ. Jana Ev. Purkyne, Brno, Czech.

SOURCE: Report (1977), CS-INIS-202, 60 pp.

Avail.: Priroved. Fak., Univ. J. E. Purkyne,  
 Brno, Czech

From: INIS Atomindex 1978, 9(24), Abstr. No.  
 416802

DOCUMENT TYPE: Report

LANGUAGE: Czech

ED Entered STN: 12 May 1984

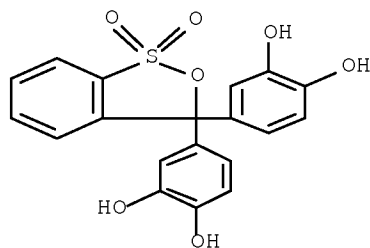
AB Certain transition elements, such as Rh and Pd, may be recovered from waste  
 solns. produced in spent fuel reprocessing. The extraction of Pd was studied  
 by using S compds. of the sulfide and sulfoxide types, and the effects were  
 investigated of the individual factors on Pd distribution between the aqueous  
 and the organic phases. The possibility of separating Hf in the form of  
 extractable complexes was tested on several systems. Studied in more detail  
 were mainly the complexes of Hf with pyrocatechol violet, Xylenol Orange, and  
 Bu3PO4. The extraction of other metals, mainly of Sc, Eu, and In was  
 investigated in detail in the system acid aqueous phase - organophosphinic  
 acids solution in benzene.

IT 115-41-3

(extracting agent, for metal from radioactive waste)

RN 115-41-3 HCAPLUS

CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-  
 (CA INDEX NAME)



IT 7440-05-3DF, isotopes, preparation

(separation of, from radioactive waste solution by extraction)

RN 7440-05-3 HCAPLUS  
CN Palladium (CA INDEX NAME)

Pd

CC 71-6 (Nuclear Technology)  
Section cross-reference(s): 61  
IT 115-41-3 126-73-8, uses and miscellaneous 1611-35-4  
(extracting agent, for metal from radioactive waste)  
IT 7440-05-3DP, isotopes, preparation 7440-16-6DP, isotopes,  
preparation 7440-20-2DP, isotopes, preparation 7440-53-1DP,  
isotopes, preparation 7440-58-6DP, isotopes, preparation  
7440-74-6DP, isotopes, preparation  
(separation of, from radioactive waste solution by extraction)

L49 ANSWER 27 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1978:539801 HCAPLUS Full-text

DOCUMENT NUMBER: 89:139801

ORIGINAL REFERENCE NO.: 89:21520h,21521a

TITLE: Mixed-ligand complexes of some elements with  
pyrocatechol violet and cetylpyridinium chloride  
AUTHOR(S): Chernova, R. K.; Kharlamova, L. N.; Belousova, V.  
V.; Kulapina, E. G.; Sumina, E. G.

CORPORATE SOURCE: Saratov State Univ., Saratov, USSR

SOURCE: Zhurnal Analiticheskoi Khimii (1978),  
33(5), 858-64  
CODEN: ZAKHA8; ISSN: 0044-4502

DOCUMENT TYPE: Journal

LANGUAGE: Russian

ED Entered STN: 12 May 1984

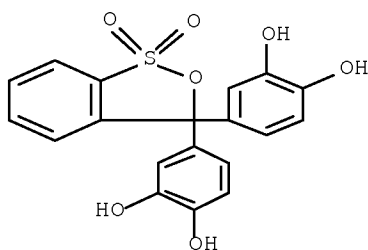
AB The formation of mixed-ligand complexes of 16 elements with pyrocatechol violet (I) and cetylpyridinium (II) was studied in acid and alkaline media in order to find optimum conditions of the anal. system and to clarify the nature of the interaction. For the model systems M-I-II, the stoichiometric ratio of the components in the mixed-ligand complex is 1:1:2 for M = W and Sn and 1:2:4 for M = Ti and Ge. The formation of an ionic associate takes place as a result of the interaction of a pos. charged N atom of II with the neg. charged I groups (the sulfogroup and ionized hydroxy groups). Optimum pH for the formation of the I-II associate is 7.5. The instability constant for the 1:2 I-II ion associate was calculated. New spectrophotometric procedures for the determination of Sn and Ti were developed. At pH 2.0, 400-fold excess Ni(II), Co(II), and Cu(II), 200-fold Cr(III), PO43-, F-, and sulfosalicylate, 100-fold Zn(II) and Mn(II), 50-fold oxalate, and 5-fold V(V), do not interfere in the Sn determination; W(VI), Fe(III), Mo(VI), Ti(IV), Ge(IV), Mn(VII), and Cr(VI) interfere. Beer's law is obeyed for 10-98 µg Sn/25 mL. In the determination of Ti optimum conditions exist in a 0.005M H2SO4 medium at a 5-fold excess of II with regard to I. Beer's law is obeyed for 5.0-25.0 µg Ti/mL. Co(II), 200-fold; Al(III), and Zn(II) 100-fold; F-, tartrate, oxalate, and PO43- 50-fold; and Cu(II) 30-fold excess do not interfere. Equimolar Fe(III) and any concentration of Mo and W interfere.

IT 115-41-3  
(in determination of tin and titanium by spectrophotometry)

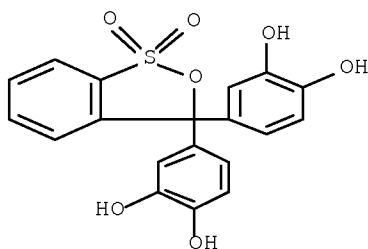
RN 115-41-3 HCAPLUS

CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-  
(CA INDEX NAME)





IT 115-41-3D, metal complexes  
 (spectra of)  
 RN 115-41-3 HCAPLUS  
 CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-  
 (CA INDEX NAME)



IT 7440-05-3D, cetylpyridinium and pyrocatechol violet complex  
 (spectrum of)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

CC 79-6 (Inorganic Analytical Chemistry)  
 IT 115-41-3 123-03-5  
 (in determination of tin and titanium by spectrophotometry)  
 IT 115-41-3D, metal complexes 7773-52-6D, metal complexes  
 (spectra of)  
 IT 7429-90-5D, cetylpyridinium and pyrocatechol violet complex  
 7439-98-7D, cetylpyridinium and pyrocatechol violet complex  
 7440-05-3D, cetylpyridinium and pyrocatechol violet complex  
 7440-31-5D, cetylpyridinium and pyrocatechol violet complex  
 7440-32-6D, cetylpyridinium and pyrocatechol violet complex  
 7440-33-7D, cetylpyridinium and pyrocatechol violet complex  
 7440-41-7D, cetylpyridinium and pyrocatechol violet complex  
 7440-43-9D, cetylpyridinium and pyrocatechol violet complex  
 7440-48-4D, cetylpyridinium and pyrocatechol violet complex  
 7440-50-8D, cetylpyridinium and pyrocatechol violet complex

7440-56-4D, cetylpyridinium and pyrocatechol violet complex  
 7440-66-6D, cetylpyridinium and pyrocatechol violet complex  
 7440-67-7D, cetylpyridinium and pyrocatechol violet complex  
 7440-69-9D, cetylpyridinium and pyrocatechol violet complex  
 (spectrum of)

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS  
 RECORD (4 CITINGS)

L49 ANSWER 28 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1977:25562 HCAPLUS Full-text

DOCUMENT NUMBER: 86:25562

ORIGINAL REFERENCE NO.: 86:4013a,4016a

TITLE: A highly sensitive spectrophotometric  
 determination of palladium with Chromal Blue G and  
 cetyltrimethylammonium chloride

AUTHOR(S): Uesugi, K.; Shigematsu, T.

CORPORATE SOURCE: Lab. Chem., Himeji Inst. Technol., Himeji, Japan

SOURCE: Analytica Chimica Acta (1976), 84(2),  
 377-82

CODEN: ACACAM; ISSN: 0003-2670

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 12 May 1984

AB A new spectrophotometric method for the determination of palladium with  
 Chromal Blue G (Color Index 43835) and cetyltrimethylammonium chloride is  
 described. The sensitivity of the color reaction between Pd and Chromal Blue  
 G is greatly increased in the presence of cetyltrimethylammonium chloride.  
 The Pd complex has maximal absorbance at pH 3.2-3.8 and at 670 nm. Beer's law  
 is obeyed at 0.08-1.4 ppm Pd; the molar absorptivity is  $1.01 \times 10^5$  mole<sup>-1</sup> cm<sup>-1</sup>  
 at 670 nm and the sensitivity is  $1 \times 10^{-3}$  µg Pd cm<sup>-2</sup>. The mole ratio of Pd and  
 Chromal Blue G in the complex in the presence of cetyltrimethylammonium  
 chloride is 1:3. Only Sc interferes when NaF is used as masking agent.

IT 7440-05-3, analysis  
 (determination of, Chromal Blue G and cetyltrimethylammonium chloride in  
 spectrophotometric)

RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

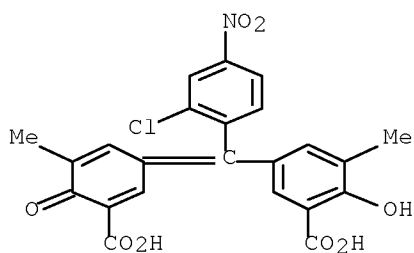
Pd

IT 10143-02-9

(in determination of palladium by spectrophotometry, increase sensitivity  
 in solns. containing cetyltrimethylammonium chloride)

RN 10143-02-9 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-  
 ylidene)(2-chloro-4-nitrophenyl)methyl]-2-hydroxy-3-methyl-, sodium  
 salt (1:2) (CA INDEX NAME)

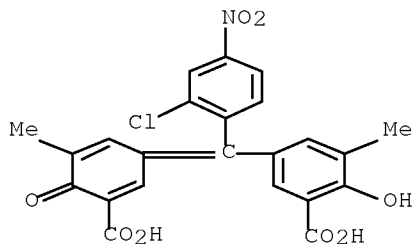


●2 Na

IT 7440-05-3D, Chromal Blue G complex 30635-96-2D,  
palladium complex  
(spectrum of, in solns. containing cetyltrimethylammonium chloride)  
RN 7440-05-3 HCAPLUS  
CN Palladium (CA INDEX NAME)

Pd

RN 30635-96-2 HCAPLUS  
CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2-chloro-4-nitrophenyl)methyl]-2-hydroxy-3-methyl- (CA INDEX NAME)



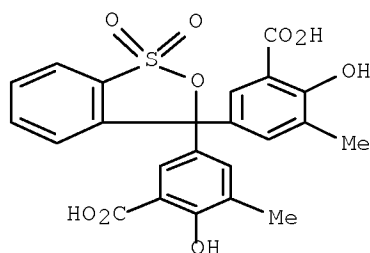
CC 79-6 (Inorganic Analytical Chemistry)  
IT 7440-05-3, analysis  
(determination of, Chromal Blue G and cetyltrimethylammonium chloride in spectrophotometric)  
IT 10143-02-9  
(in determination of palladium by spectrophotometry, increase sensitivity in solns. containing cetyltrimethylammonium chloride)  
IT 7440-05-3D, Chromal Blue G complex 30635-96-2D,  
palladium complex  
(spectrum of, in solns. containing cetyltrimethylammonium chloride)

L49 ANSWER 29 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 1973:413183 HCAPLUS Full-text  
DOCUMENT NUMBER: 79:13183

ORIGINAL REFERENCE NO.: 79:2085a,2088a  
 TITLE: Spectrophotometric determination of palladium with eriochrome cyanine R  
 AUTHOR(S): Shigematsu, Tsunenobu; Matsui, Masakazu; Uesugi, Katsuya  
 CORPORATE SOURCE: Inst. Chem. Res., Kyoto Univ., Uji, Japan  
 SOURCE: Bulletin of the Institute for Chemical Research, Kyoto University (1972), 50(6), 634-44  
 CODEN: BICRAS; ISSN: 0023-6071  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 12 May 1984  
 AB Pd was determined spectrophotometrically at 620 nm (molar absorptivity was  $9.9 + 104$ ) after complexation with Eriochrome Cyanine R in the presence of tetradecyldimethylbenzylammonium chloride at pH 4.0-5.6. Beer's law was followed for 0.1-1.2 ppm Pd, and the sensitivity was  $0.0011 \mu\text{g Pd/cm}^2$ . Interference by Cu(II) and Fe(III) in amts.  $>150 \mu\text{g}$  cannot be eliminated with F<sup>-</sup> masking agent. In the presence and absence of I, the complex had a 1:3 and 1:2 metal-ligand ratio, resp. In the absence of I, absorbance was measured at 605 nm (molar absorptivity was  $6.8 + 104$ ), and the sensitivity was  $1.6 + 10^{-3} \mu\text{g Pd/cm}^2$ . Eriochrome Cyanine R gave a more sensitive method for Pd determination than other triphenylmethane dyes.  
 IT 7440-05-3, analysis  
 (determination of, eriochrome cyanine R in spectrophotometric)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

IT 3564-18-9  
 (in determination of palladium, spectrophotometric)  
 RN 3564-18-9 HCAPLUS  
 CN Benzoic acid, 3,3'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[6-hydroxy-5-methyl-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

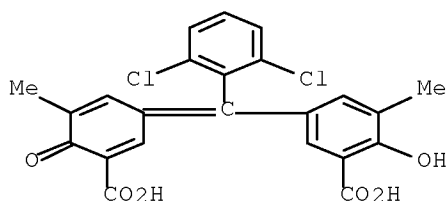
IT 1796-92-5D, Benzoic acid,  
 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichlorophenyl)methyl]-2-hydroxy-3-methyl-, disodium salt, palladium complex 3267-40-1D, Benzoic acid,

10/530,790

5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,3,6-trichlorophenyl)methyl]-2-hydroxy-3-methyl-, disodium salt, palladium complex 3564-17-8D, Benzoic acid,  
 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulfohenyl)methyl]-2-hydroxy-3-methyl-, palladium complex 7452-52-0D, Benzoic acid,  
 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)[2-chloro-4-(diethylamino)phenyl)methyl]-2-hydroxy-3-methyl-, palladium complex 10143-02-9D, Benzoic acid,  
 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2-chloro-4-nitrophenyl)methyl]-2-hydroxy-3-methyl-, disodium salt, palladium complex  
 (spectrum of)

RN 1796-92-5 HCAPLUS

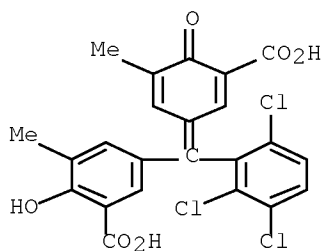
CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichlorophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 3267-40-1 HCAPLUS

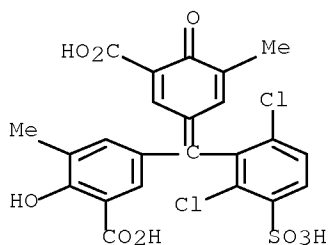
CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,3,6-trichlorophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

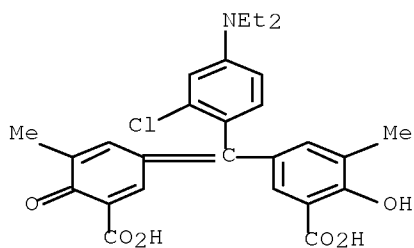
RN 3564-17-8 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulfohenyl)methyl]-2-hydroxy-3-methyl- (CA INDEX NAME)



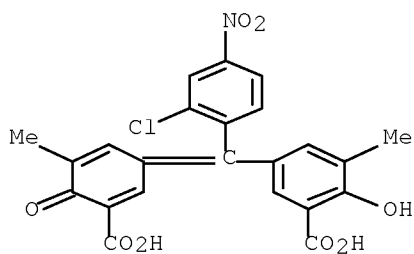
RN 7452-52-0 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)[2-chloro-4-(diethylamino)phenyl]methyl]-2-hydroxy-3-methyl- (CA INDEX NAME)



RN 10143-02-9 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2-chloro-4-nitrophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

CC 79-6 (Inorganic Analytical Chemistry)

IT 7440-05-3, analysis

(determination of, eriochrome cyanine R in spectrophotometric)

IT 139-08-2 3564-18-9

(in determination of palladium, spectrophotometric)

IT 1796-92-5D, Benzoic acid,

5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichlorophenyl)methyl]-2-hydroxy-3-methyl-, disodium salt, palladium complex ~~3267-40-1D~~, Benzoic acid,  
 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,3,6-trichlorophenyl)methyl]-2-hydroxy-3-methyl-, disodium salt, palladium complex ~~3564-17-8D~~, Benzoic acid,  
 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulphophenyl)methyl]-2-hydroxy-3-methyl-, palladium complex ~~7452-52-0D~~, Benzoic acid,  
 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)[2-chloro-4-(diethylamino)phenyl)methyl]-2-hydroxy-3-methyl-, palladium complex ~~10143-02-9D~~, Benzoic acid,  
 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2-chloro-4-nitrophenyl)methyl]-2-hydroxy-3-methyl-, disodium salt, palladium complex  
 (spectrum of)

L49 ANSWER 30 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1972:456074 HCAPLUS Full-text

DOCUMENT NUMBER: 77:56074

ORIGINAL REFERENCE NO.: 77:9223a,9226a

TITLE: Spectrophotometric determination of palladium with Pontachrome Azure Blue B

AUTHOR(S): Uesugi, Katsuya; Shigematsu, Tsunenobu; Tabushi, Masayuki

CORPORATE SOURCE: Lab. Chem., Himeji Inst. Technol., Himeji, Japan

SOURCE: Analytica Chimica Acta (1972), 60(1), 79-86

CODEN: ACACAM; ISSN: 0003-2670

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 12 May 1984

AB A new spectrophotometric method for the determination of palladium with Pontachrome Azure Blue B (Color Index 43830) as reagent is described. The Pd complex has maximum absorbance at pH 5.2-5.7 and at 605 nm. Beer's law is obeyed up to at least 2.5 ppm Pd; the molar absorptivity is  $4.79 + 10^4$  l. mole<sup>-1</sup> cm<sup>-1</sup> and the sensitivity is  $2.2 + 10^{-3}$  µg Pd cm<sup>-2</sup>. The mole ratio of Pd and reagent in the complex is 1:2. The formation constant of the complex is  $5.0 + 10^{10}$  under these conditions. Only Cu(II) and Fe(III) interfere with the determination of Pd when NaF is used as a masking agent.

IT 7440-05-3, analysis

(determination of, Pontachrome Azure Blue B in)

RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

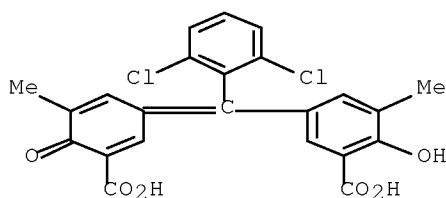
Pd

IT 15012-28-9

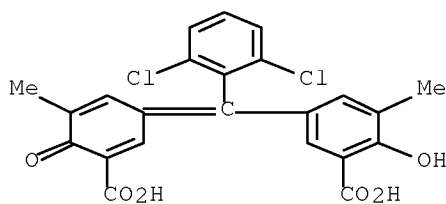
(in determination of palladium)

RN 15012-28-9 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichlorophenyl)methyl]-2-hydroxy-3-methyl- (CA INDEX NAME)



IT 1796-92-5D, Benzoic acid,  
5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-  
dichlorophenyl)methyl]-2-hydroxy-3-methyl-, disodium salt, palladium  
complexes  
(spectra of)  
RN 1796-92-5 HCAPLUS  
CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-  
ylidene)(2,6-dichlorophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt  
(1:2) (CA INDEX NAME)



● 2 Na

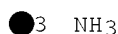
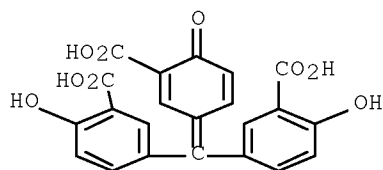
CC 79-6 (Inorganic Analytical Chemistry)  
IT 7440-05-3, analysis  
(determination of, Pontachrome Azure Blue B in)  
IT 15012-28-9  
(in determination of palladium)  
IT 1796-92-5D, Benzoic acid,  
5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-  
dichlorophenyl)methyl]-2-hydroxy-3-methyl-, disodium salt, palladium  
complexes  
(spectra of)  
  
L49 ANSWER 31 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 1964:451207 HCAPLUS Full-text  
DOCUMENT NUMBER: 61:51207  
ORIGINAL REFERENCE NO.: 61:8890g-h  
TITLE: Absorptimetric study of ammonium  
aurintricarboxylate as a reagent for palladium(II)  
AUTHOR(S): Munshi, Kailash N.; Dey, Arun K.  
CORPORATE SOURCE: Univ. Allahabad, India  
SOURCE: Talanta (1964), 11(8), 1265-8  
CODEN: TLNTA2; ISSN: 0039-9140  
DOCUMENT TYPE: Journal  
LANGUAGE: English



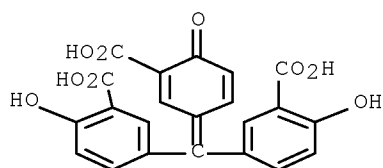
ED Entered STN: 22 Apr 2001  
 AB A colorimetric method for the determination of Pd(II) with NH<sub>4</sub> aurintricarboxylate (aluminon) is described. The method involves the formation of a violet chelate of Pd-aluminon at pH 4.0. The color reaction has a sensitivity of 0.026 γ/cm.<sup>2</sup> for log I<sub>0</sub>/I = 0.001, and obeys Beer's law over the range of 0.14-7.7 p.p.m. of Pd. The effects of pH, time, order of addition of the reagents, temperature, and diverse ions were investigated, and a procedure for the microdetn. of Pd was described. The composition of the complex was confirmed by 3 different methods as 1:2 (metal:reagent), and the equilibrium of 109.8 was found by the method of D., et al. (Mukherji and D., Ca 52, 18066c; 53, 21378e), at pH 4.0, 25°, and ionic strength 0.1M.  
 IT 7440-05-3, Palladium  
 (analysis, determination, NH<sub>4</sub> aurintricarboxylate in)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

IT 569-58-4, 1,4-Cyclohexadiene-1-carboxylic acid,  
 3-[bis(3-carboxy-4-hydroxyphenyl)methylene]-6-oxo-, triammonium salt  
 (in Pd determination)  
 RN 569-58-4 HCAPLUS  
 CN Benzoic acid, 3,3'-[(3-carboxy-4-oxo-2,5-cyclohexadien-1-ylidene)methylene]bis[6-hydroxy-, ammonium salt (1:3) (CA INDEX NAME)



IT 4431-00-9, 1,4-Cyclohexadiene-1-carboxylic acid,  
 3-[bis(3-carboxy-4-hydroxyphenyl)methylene]-6-oxo-, palladium complex  
 (ionization and spectrum of)  
 RN 4431-00-9 HCAPLUS  
 CN Benzoic acid, 3,3'-[(3-carboxy-4-oxo-2,5-cyclohexadien-1-ylidene)methylene]bis[6-hydroxy- (CA INDEX NAME)



CC 2 (Analytical Chemistry)  
 IT 7440-05-3, Palladium  
 (analysis, determination, NH<sub>4</sub> aurintricarboxylate in)  
 IT 569-58-4, 1,4-Cyclohexadiene-1-carboxylic acid,  
 3-[bis(3-carboxy-4-hydroxyphenyl)methylene]-6-oxo-, triammonium salt  
 (in Pd determination)  
 IT 4431-00-9, 1,4-Cyclohexadiene-1-carboxylic acid,  
 3-[bis(3-carboxy-4-hydroxyphenyl)methylene]-6-oxo-, palladium complex  
 (ionization and spectrum of)

L49 ANSWER 32 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1964:86382 HCAPLUS Full-text

DOCUMENT NUMBER: 60:86382

ORIGINAL REFERENCE NO.: 60:15119f-h

TITLE: Photometric investigation of precipitation  
 titrations

AUTHOR(S): St. Blakeley, J. H.; Ryan, D. E.

CORPORATE SOURCE: Dalhousie Univ., Halifax, Can.

SOURCE: Analytica Chimica Acta (1964), 30(4),  
 346-52

CODEN: ACACAM; ISSN: 0003-2670

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 22 Apr 2001

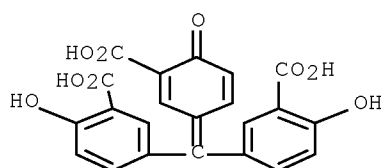
AB Precipitation titrations were studied photometrically with >50 precipitants (SO<sub>4</sub><sup>2-</sup>, Cl<sup>-</sup>, Br<sup>-</sup>, I<sup>-</sup>, CO<sub>3</sub><sup>2-</sup>, C<sub>2</sub>O<sub>4</sub><sup>2-</sup>, PO<sub>4</sub><sup>3-</sup>, 8-quinolinol, NH<sub>4</sub> aurintricarboxylate, phytic acid, BzN(Ph)OH, o-phenanthroline (I)) in a concentration range of 10<sup>-2</sup>-10<sup>-4</sup>M, by means of a turbidimeter (horizontal light absorbance) or a heterometer (vertical absorbance) (Bobtelsky and Bar-Gadda, CA 47, 6300b). The automatically-recorded steady-state absorbance values of a stirred precipitate or suspension were plotted vs. volume of the titrant added; the end point is the intersection of the absorbance-volume curve with the maximum absorbance line. The shapes of titration curves obtained by the turbidimetric and heterometric methods were approx. the same. A smooth curve was obtained for the titration of Pd<sup>++</sup> with I<sup>-</sup>, with the end point at a Pd<sup>++</sup>/I mole ratio of 1:1. I<sup>-</sup> + Cl<sup>-</sup> are titrated quant. with Hg<sub>2</sub><sup>++</sup>, but an intermediate break equivalent to I<sup>-</sup> was not obtained. Ba<sup>++</sup> + Sr<sup>++</sup> are titrated quant. by SO<sub>4</sub><sup>2-</sup> without an intermediate break for Ba<sup>++</sup>. F<sup>-</sup> + C<sub>2</sub>O<sub>4</sub><sup>2-</sup> are titrated quant. by Ca<sup>++</sup>, but a break occurs before the F<sup>-</sup> end point. The titration of 8-quinolinol with Al<sup>3+</sup> was not stoichiometric owing to complex formation. No intermediate breaks in the titration curves were found where stepwise formation was possible. The error by either method is ≤1%. Changes in the phys. form of the precipitate can increase the error to 5%.

IT 4431-00-9

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 4431-00-9 HCAPLUS

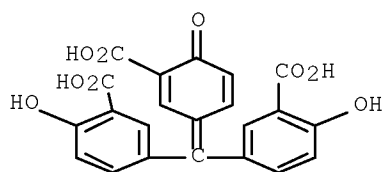
CN Benzoic acid, 3,3'-[(3-carboxy-4-oxo-2,5-cyclohexadien-1-ylidene)methylene]bis[6-hydroxy- (CA INDEX NAME)



IT 7440-05-3, Palladium  
 (analysis, determination, precipitation titrimetric)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

IT 569-58-4, 1,4-Cyclohexadiene-1-carboxylic acid,  
 3-[bis(3-carboxy-4-hydroxyphenyl)methylene]-6-oxo-, triammonium salt  
 (in precipitation titrations)  
 RN 569-58-4 HCAPLUS  
 CN Benzoic acid, 3,3'-[(3-carboxy-4-oxo-2,5-cyclohexadien-1-ylidene)methylene]bis[6-hydroxy-, ammonium salt (1:3) (CA INDEX NAME)

●<sub>3</sub> NH<sub>3</sub>

IT 7440-05-3, Palladium  
 (titration of, by 1,10-phenanthroline)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

CC 2 (Analytical Chemistry)  
 IT 4431-00-9  
 (Derived from data in the 7th Collective Formula Index (1962-1966))  
 IT 7440-05-3, Palladium  
 (analysis, determination, precipitation titrimetric)  
 IT 569-58-4, 1,4-Cyclohexadiene-1-carboxylic acid,  
 3-[bis(3-carboxy-4-hydroxyphenyl)methylene]-6-oxo-, triammonium salt  
 (in precipitation titrations)  
 IT 7440-05-3, Palladium  
 (titration of, by 1,10-phenanthroline)

L49 ANSWER 33 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1964:27073 HCAPLUS Full-text

DOCUMENT NUMBER: 60:27073  
 ORIGINAL REFERENCE NO.: 60:4789c-e  
 TITLE: Spectrophotometric determination of palladium with  
 2-mercaptobenzoxazole  
 AUTHOR(S): Arita, Takaichi; Yoe, John H.  
 CORPORATE SOURCE: Univ. of Virginia, Charlottesville  
 SOURCE: Analytica Chimica Acta (1963), 29(6),  
 500-4  
 CODEN: ACACAM; ISSN: 0003-2670  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

ED Entered STN: 22 Apr 2001

AB One ml. of a solution containing 100-300 p.p.m. Pd is transferred into a 10-ml. volumetric flask and diluted with 3 ml. each of dioxane and cyclohexanone. After mixing, 2 ml. of a freshly prepared solution (0.15%) of 2-mercaptobenzoxazole (I) in 1:1 dioxane-water is added. The solution is made up to volume with dioxane and the mixture allowed to stand for about 20 min. The absorbance at 375 m $\mu$  of the yellow Pd complex with I is measured against the reagent solution as a blank. The amount of Pd is obtained from a reference curve. The color reaction has a sensitivity of 0.08  $\gamma$  of Pd/cm.<sup>2</sup> for logI<sub>0</sub>/I = 0.001 and obeys Beer's law at 2-40 p.p.m. Pd. The Pd complex with I is formed instantaneously and over a wide pH range. The tolerances of interfering ions such as Fe, Cu, Au, Os in the presence of 20 p.p.m. Pd are listed. Results of the spectroscopic method for the determination of 21.3 p.p.m. Pd in the presence of other elements are shown. The standard deviation was  $\pm 0.88\%$ .

IT 7440-05-3, Palladium  
 (analysis, determination, 2-benzoxazoethiol in)

RN 7440-05-3 HCAPLUS

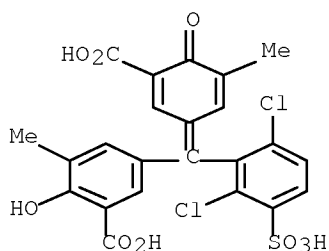
CN Palladium (CA INDEX NAME)

Pd

IT ~~1667-99-8~~, C.I. Mordant Blue 29  
 (in palladium determination)

RN 1667-99-8 HCAPLUS

CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulphophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

CC 2 (Analytical Chemistry)  
 IT 7440-05-3, Palladium  
 (analysis, determination, 2-benzoxazolethiol in)  
 IT 1667-99-8, C.I. Mordant Blue 29 2382-96-9,  
 2-Benzoxazolethiol  
 (in palladium determination)

L49 ANSWER 34 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1963:69761 HCAPLUS Full-text  
 DOCUMENT NUMBER: 58:69761  
 ORIGINAL REFERENCE NO.: 58:11939f-h,11940a  
 TITLE: Systematic analysis of zirconium after neutron  
 irradiation  
 AUTHOR(S): Fournet, Louis  
 CORPORATE SOURCE: Centre Etudes Chim., Metallurgique,  
 Vitry-sur-Seine, Fr.  
 SOURCE: Ann. Chim. (Paris) (1962), 7, 763-84  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 ED Entered STN: 22 Apr 2001

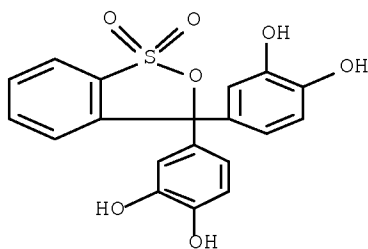
AB Hf-free Zr purified by the Kroll process plus arc-melting and by the Van Arkel process was analyzed for 48 impurities, including 13 lanthanides, by neutron activation. A thin-end-window GeigerMueller tube ( $\beta$ -rays) and  $\gamma$ -ray scintillation spectrometer with a magnetic memory unit were used. Most of the elements are determined in a 1-g. Zr sample irradiated 1 week in a  $1-1.4 + 1012$  neutron/sq. cm./sec. flux. The irradiated Zr is treated with Cl gas, dissolved in 4N HCl, then divided in 3 portions. In the first, after sepns., Se ( $\text{Se}^{75}$ ,  $\gamma$ -rays at 136 and 265 k.e.v.) and part of the Au ( $\gamma$ -rays at 411 k.e.v.), Hg, As, Sb, W, Te ( $\text{I}^{132}$ ), Pb, Au, Cu, Mo ( $\text{Mo}^{99}$  can be from U), and Bi are determined. In the second portion, after sepns.,  $\text{Tl}^{204}$ ,  $\text{Fe}^{59}$ ,  $\text{Ga}^{72}$ , In ( $\text{In}^{115\text{m}}$  if no Cd), Th ( $\text{Pa}^{233}$ ), Sc, Cr, Ni, Co, Cd ( $\text{Cd}^{115}$  or  $\text{In}^{115\text{m}}$ ), Mn, Zn ( $\text{Zn}^{69\text{m}}$  or  $\text{Zn}^{65}$ ), Na, K ( $\text{K}^{42}$  at 1.52 m.e.v.), Rb ( $\text{Rb}^{86}$ ,  $\gamma$ -rays at 1.08 m.e.v. after K decay), Cs ( $\text{Cs}^{134}$  at 605 and 796 k.e.v.), lanthanides (more  $\text{Np}^{239}$  than lanthanides are found), Ca, Sr, and Ba ( $\text{Ba}^{140}$  can be from U) are determined. In the third portion, Hf, Zr, Nb, and Ta are determined. On a sep. sample after a  $\gamma, n$  reaction (30 min. at  $6 + 1012$  neutrons/sq. cm./sec.), Br, Cl, and I are determined. On another sample after  $\gamma, n$  reaction, F is determined as  $\text{BaSiF}_6$  and N as  $\text{NH}_4\text{OH}$ . On another sample after precipitation of Zr mandelate, the hydroxides of Al and V and the 8-quinolinolates of Mg and Ti are irradiated for 10-20 sec. and 1-2 min., resp., at a flux of  $6 + 1012$  neutrons/sq. cm./sec. and counted immediately. The results are corrected for the fission products and efficiency of extns. and pptns. The limits of determination and details of chemical separation are given.

IT 7440-05-3, Palladium  
 (analysis, determination in Zr)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

IT 115-41-3, o-Toluenesulfonic acid,  
 $\alpha, \alpha$ -bis(3,4-dihydroxyphenyl)- $\alpha$ -hydroxy-,  
 $\gamma$ -sultone  
 (in Y determination)

RN 115-41-3 HCAPLUS  
 CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-  
 (CA INDEX NAME)



CC 2 (Analytical Chemistry)  
 IT 7429-90-5, Aluminum 7439-89-6, Iron 7439-96-5, Manganese  
 7439-97-6, Mercury 7439-98-7, Molybdenum 7440-02-0, Nickel  
 7440-03-1, Niobium ~~7440-05-3~~, Palladium 7440-09-7,  
 Potassium 7440-17-7, Rubidium 7440-20-2, Scandium 7440-22-4,  
 Silver 7440-23-5, Sodium 7440-24-6, Strontium 7440-25-7,  
 Tantalum 7440-28-0, Thallium 7440-29-1, Thorium 7440-32-6,  
 Titanium 7440-33-7, Tungsten 7440-36-0, Antimony 7440-38-2,  
 Arsenic 7440-43-9, Cadmium 7440-46-2, Cesium 7440-47-3, Chromium  
 7440-48-4, Cobalt 7440-50-8, Copper 7440-55-3, Gallium  
 7440-57-5, Gold 7440-58-6, Hafnium 7440-61-1, Uranium 7440-62-2,  
 Vanadium 7440-65-5, Yttrium 7440-66-6, Zinc 7440-70-2, Calcium  
 7440-74-6, Indium 7553-56-2, Iodine 7726-95-6, Bromine  
 7727-37-9, Nitrogen 7782-41-4, Fluorine 7782-50-5, Chlorine  
 (analysis, determination in Zr)  
 IT ~~115-41-3~~, o-Toluenesulfonic acid,  
 $\alpha,\alpha$ -bis(3,4-dihydroxyphenyl)- $\alpha$ -hydroxy-,  
 $\gamma$ -sultone  
 (in Y determination)

L49 ANSWER 35 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1960:108832 HCAPLUS Full-text

DOCUMENT NUMBER: 54:108832

ORIGINAL REFERENCE NO.: 54:20634h-i,20635a

TITLE: Spectrophotometric determination of palladium with  
 nioxime and benzildioxime

AUTHOR(S): Pshenitsyn, N. K.; Ivonina, O. M.

SOURCE: Zavodskaya Laboratoriya (1958), 24,  
 1185-9

CODEN: ZVDLAU; ISSN: 0321-4265

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

ED Entered STN: 22 Apr 2001

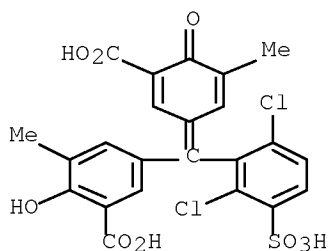
AB The ability of Pd oximes to dissolve in organic solvents was utilized by Peshkovoi and Shlenskaya (CA 49, 4448c) to develop a colorimetric method to determine small amts. of Pd. A table of dioximes and oximes suitable for spectrophotometric determination of Pd is given. To determine Pd in PdCl<sub>2</sub>, the solution is adjusted to pH 1 when ni oxime (I) is used and pH 2 when  $\alpha$ -benzil dioxime (II) is the reagent, with an acetate buffer. To form the oxime, 1 ml. 0.08% aqueous solution of I or 2.5 ml. of 0.02% alc. II is added, and the solution allowed to stand for 10-15 min. and 1 hr., resp. The complex

salt of Pd is extracted with  $\text{CHCl}_3$ , and the optical d. measured at 280 m $\mu$  for I and 323-5 m $\mu$  for II.

IT 7440-05-3, Palladium  
(analysis, determination, benzildioxime and nioxime in)  
RN 7440-05-3 HCAPLUS  
CN Palladium (CA INDEX NAME)

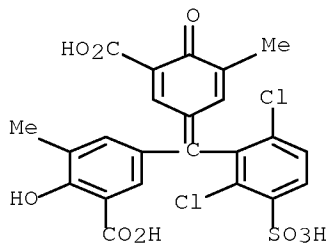
Pd

IT 1667-99-8, Alberon 3564-17-8, 2,3-Cresotic acid,  
5-[ $\alpha$ -(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)-2,6-dichloro-3-sulfobenzyl]-  
(in aluminum determination, and spectrum of its Al complex)  
RN 1667-99-8 HCAPLUS  
CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulfophenyl)methyl]-2-hydroxy-3-methyl-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

RN 3564-17-8 HCAPLUS  
CN Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulfophenyl)methyl]-2-hydroxy-3-methyl- (CA INDEX NAME)



IT 7647-10-1, Palladium chloride,  $\text{PdCl}_2$   
(palladium determination in)

10/530,790

RN 7647-10-1 HCAPLUS  
CN Palladium chloride (PdCl<sub>2</sub>) (CA INDEX NAME)

Cl—Pd—Cl

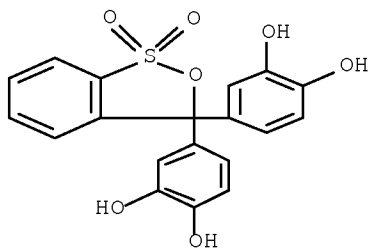
CC 7 (Analytical Chemistry)  
IT 7440-05-3, Palladium  
(analysis, determination, benzildioxime and nioxime in)  
IT 1667-99-8, Alberon 3564-17-8, 2,3-Cresotic acid,  
5-[ $\alpha$ -(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)-2,6-  
dichloro-3-sulfobenzyl]-  
(in aluminum determination, and spectrum of its Al complex)  
IT 7647-10-1, Palladium chloride, PdCl<sub>2</sub>  
(palladium determination in)  
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS  
RECORD (1 CITINGS)

L49 ANSWER 36 OF 36 HCAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 1956:56324 HCAPLUS Full-text  
DOCUMENT NUMBER: 50:56324  
ORIGINAL REFERENCE NO.: 50:10595d  
TITLE: Pyrocatechol Violet: indicator for chelatometric  
titrations  
AUTHOR(S): Suk, V.; Malat, M.  
CORPORATE SOURCE: Charles Univ., Prague  
SOURCE: Chemist-Analyst (1956), 45, 30-7  
CODEN: CHANAA; ISSN: 0095-8484  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
ED Entered STN: 22 Apr 2001  
AB Five possible formulas are discussed, and detailed directions are given for  
determining Bi, Th, In, Ga, Fe, Ir, Th, Cu, Al, Ti, Ni, Co, Pd, Mn, Zn, Mg,  
and Cd. A highly specific procedure for detecting Zr is pointed out. 37  
references.  
IT 7440-05-3, Palladium  
(analysis, determination)  
RN 7440-05-3 HCAPLUS  
CN Palladium (CA INDEX NAME)

Pd

IT 115-41-3, Pyrocatechol Violet  
(as indicator in chelatometry)  
RN 115-41-3 HCAPLUS  
CN 1,2-Benzenediol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-  
(CA INDEX NAME)





CC 7 (Analytical Chemistry)

IT 7429-90-5, Aluminum 7439-89-6, Iron 7439-92-1, Lead 7439-95-4,  
 Magnesium 7439-96-5, Manganese 7440-05-3, Palladium  
 7440-29-1, Thorium 7440-32-6, Titanium 7440-43-9, Cadmium  
 7440-48-4, Cobalt 7440-50-8, Copper 7440-55-3, Gallium  
 7440-66-6, Zinc 7440-69-9, Bismuth 7440-74-6, Indium  
 (analysis, determination)

IT 115-41-3, Pyrocatechol Violet

(as indicator in chelatometry)

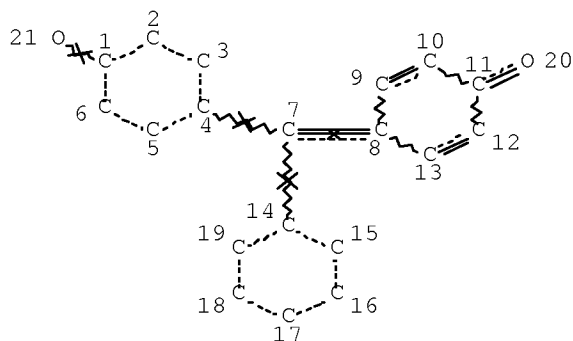
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS  
 RECORD (1 CITINGS)

=> d que 147

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L2      8 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  (115-41-3/BI OR
        1667-99-8/BI OR 1796-92-5/BI OR 3564-18-9/BI OR 7440-05-3/B
        I OR 7440-50-8/BI OR 7647-10-1/BI OR 7758-98-7/BI)
L3      1 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  "CHROME AZUROL
        S"/CN
L4      1 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  "CHROME AZUROL
        B"/CN
L6      1 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  "ERIOCHROME
        CYANINE R"/CN
L7      1 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  "PYROCATECHOL
        VIOLET"/CN
L10     STR

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# NODE ATTRIBUTES:

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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

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# GRAPH ATTRIBUTES:

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RSPEC I
NUMBER OF NODES IS 21

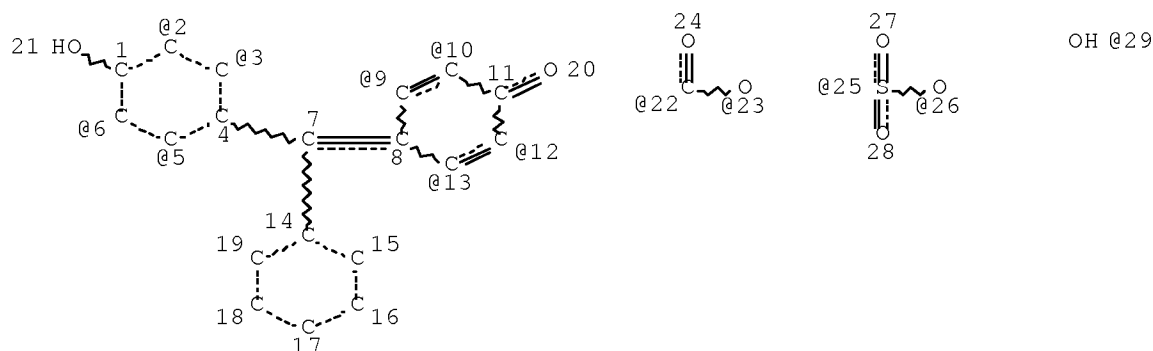
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# STEREO ATTRIBUTES: NONE

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L16      931 SEA FILE=REGISTRY SSS FUL L10 AND L14
L17      2 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  L16 AND L2
L19      2 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  L2 AND PD/ELS
L22      124082 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L19
L23      1090 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L17
L24      19 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L22 AND L23
L28      2280 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L3 OR L4 OR L6 OR
        L7
L29      39 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L28 AND L22
L30      32 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L29 AND ANST/RL
L31      31 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L30 AND (1840-2003
        )/PRY,AY,PY
L33      STR

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G1 @30    G1 @31

VAR G1=29/25/26/22/23  
 VPA 30-2/3/5/6 U  
 VPA 31-9/10/12/13 U  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RSPEC I  
 NUMBER OF NODES IS 31

STEREO ATTRIBUTES: NONE

L35            167 SEA FILE=REGISTRY SUB=L16 SSS FUL L33  
 L36            3081 SEA FILE=HCAPLUS SPE=ON    ABB=ON    PLU=ON    L35  
 L37            37 SEA FILE=HCAPLUS SPE=ON    ABB=ON    PLU=ON    L36 AND L22  
 L38            36 SEA FILE=HCAPLUS SPE=ON    ABB=ON    PLU=ON    L37 AND (1840-2003  
                   )/PRY,AY,PY  
 L40            1 SEA FILE=REGISTRY SPE=ON    ABB=ON    PLU=ON    7440-05-3/RN  
 L41            116334 SEA FILE=HCAPLUS SPE=ON    ABB=ON    PLU=ON    L40  
 L42            36 SEA FILE=HCAPLUS SPE=ON    ABB=ON    PLU=ON    L38 AND L41  
 L43            18 SEA FILE=HCAPLUS SPE=ON    ABB=ON    PLU=ON    L24 AND (1840-2003  
                   )/PRY,AY,PY  
 L44            36 SEA FILE=HCAPLUS SPE=ON    ABB=ON    PLU=ON    L42 OR L43  
 L45            22 SEA FILE=HCAPLUS SPE=ON    ABB=ON    PLU=ON    L31 AND L44  
 L46            36 SEA FILE=HCAPLUS SPE=ON    ABB=ON    PLU=ON    L44 OR L45  
 L47            9 SEA FILE=HCAPLUS SPE=ON    ABB=ON    PLU=ON    L31 NOT L46

=> d 147 1-9 ibib ed abs hitstr hitind

L47 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER:        1996:335472 HCAPLUS Full-text  
 DOCUMENT NUMBER:        125:25154  
 ORIGINAL REFERENCE NO.: 125:4735a,4738a  
 TITLE:                    Study on the color reaction of palladium with ECR  
                               in the presence of CTMAB  
 AUTHOR(S):                Hu, Jiayuan; Xu, Lifang; Qian, Yiyin; Cai, Weidong  
 CORPORATE SOURCE:        Shanghai Higher Academy Chemical Technol.,  
                               Shanghai, 200233, Peop. Rep. China  
 SOURCE:                    Lihua Jianyan, Huaxue Fence (1996),  
                               32(1), 41,58

CODEN: LJHFE2; ISSN: 1001-4020

PUBLISHER: Jixie Gongyebu Shanghai Cailiao Yanjiuso

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

ED Entered STN: 08 Jun 1996

AB The blue violet complex of palladium with eriochrome cyanine R formed at pH 5 in the presence of CTMAB and was used for spectrophotometric determination of Pd. The absorption maximum of the complex was at 625 nm; the molar absorptivity was  $6.8 \times 10^4 \text{ L mol}^{-1} \text{ cm}^{-1}$ . Beer's law was obeyed at 0.1-2.8  $\mu\text{g/mL}$ . The method was applied to the determination of Pd in catalysts with satisfactory results.

IT 7440-05-3, Palladium, analysis

(determination of palladium by spectrophotometry using eriochrome cyanine R and CTMAB)

RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

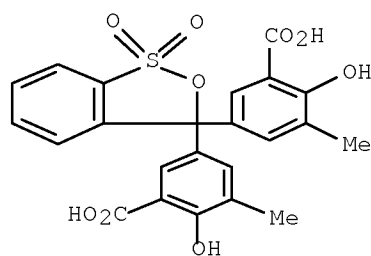
Pd

IT 3564-18-9, Eriochrome cyanine R

(determination of palladium by spectrophotometry using eriochrome cyanine R and CTMAB)

RN 3564-18-9 HCAPLUS

CN Benzoic acid, 3,3'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[6-hydroxy-5-methyl-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

CC 79-6 (Inorganic Analytical Chemistry)

IT 7440-05-3, Palladium, analysis

(determination of palladium by spectrophotometry using eriochrome cyanine R and CTMAB)

IT 57-09-0, CTMAB 3564-18-9, Eriochrome cyanine R

(determination of palladium by spectrophotometry using eriochrome cyanine R and CTMAB)

L47 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1989:165170 HCAPLUS Full-text

DOCUMENT NUMBER: 110:165170

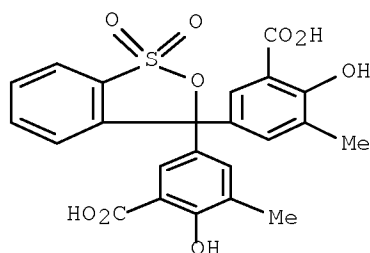
ORIGINAL REFERENCE NO.: 110:27165a,27168a

TITLE: Different-ligand complexes of some metal ions with

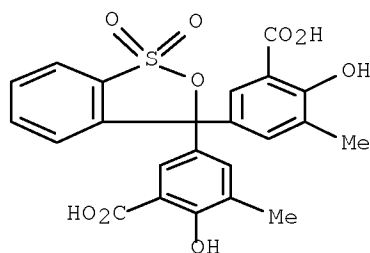
AUTHOR(S): Eriochrome Cyanine R and diphenylguanidine  
 Chermakova, L. I.; Baltgalve, I.; Rudzitis, G.  
 CORPORATE SOURCE: Univ. Charles, Prague, Czech.  
 SOURCE: Latvijas PSR Zinatnu Akademijas Vestis, Kimijas  
 Serija (1988), (5), 578-81  
 CODEN: LZAKAM; ISSN: 0002-3248  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 ED Entered STN: 30 Apr 1989  
 AB Eriochrome Cyanine R and diphenylguanidine form with Cu(II), Pd, and Be mixed-  
 ligand complexes. Complexes of Be are practically completely extracted by  
 mixts. of CHCl<sub>3</sub> with BuOH (7:3). The spectral contrast of the color reactions  
 is 55-160 nm. The absorption maximum are at 560-590 nm. The molar  
 absorptivities are 35,000-80,000. Maximum complex formation takes place at pH  
 6.0-7.5. The mixed-ligand complexes of Cu(II) and Be are more deeply and  
 intensely colored than the homoligand complexes. This color reaction can be  
 used for determining Be by extraction and spectrophotometry.  
 IT 7440-05-3, Palladium, reactions  
 (complexation of, with diphenylguanidine and Eriochrome Cyanine R)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

IT 3564-18-9  
 (for determination of beryllium by extraction and spectrophotometry)  
 RN 3564-18-9 HCAPLUS  
 CN Benzoic acid, 3,3'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[6-  
 hydroxy-5-methyl-, sodium salt (1:3) (CA INDEX NAME)

●<sub>3</sub> Na

IT 3564-18-9D, Eriochrome cyanin R, transition metal complexes  
 with diphenylguanidine and  
 (spectra of)  
 RN 3564-18-9 HCAPLUS  
 CN Benzoic acid, 3,3'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[6-  
 hydroxy-5-methyl-, sodium salt (1:3) (CA INDEX NAME)



●<sub>3</sub> Na

IT 7440-05-3D, Palladium, diphenylguanidine Eriochrome Cyanine  
R complex  
(spectrum of)  
RN 7440-05-3 HCAPLUS  
CN Palladium (CA INDEX NAME)

Pd

CC 79-6 (Inorganic Analytical Chemistry)  
Section cross-reference(s): 78  
IT 7440-05-3, Palladium, reactions 7440-50-8, Copper,  
reactions  
(complexation of, with diphenylguanidine and Eriochrome Cyanine R)  
IT 102-06-7 3564-18-9  
(for determination of beryllium by extraction and spectrophotometry)  
IT 102-06-7D, Diphenylguanidine, transition metal complexes with  
Eriochrome Cyanine R and 3564-18-9D, Eriochrome cyanin R,  
transition metal complexes with diphenylguanidine and  
(spectra of)  
IT 744-05-8D, diphenylguanidine Eriochrome Cyanine R complex  
7440-05-3D, Palladium, diphenylguanidine Eriochrome Cyanine R  
complex 7440-41-7D, Beryllium, diphenylguanidine Eriochrome Cyanine  
R complex  
(spectrum of)

L47 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 1986:526174 HCAPLUS Full-text  
DOCUMENT NUMBER: 105:126174  
ORIGINAL REFERENCE NO.: 105:20207a,20210a  
TITLE: Spectrophotometric determination of palladium (II)  
using thiolactams and Eriochrome Cyanine R  
AUTHOR(S): Sikorska-Tomicka, Halina  
CORPORATE SOURCE: Pol.  
SOURCE: Zeszyty Naukowe Politechniki Bialostockiej:  
Matematyka Fizyka, Chemia (1985), 9,  
77-84  
CODEN: ZNPCDA; ISSN: 0324-8410  
DOCUMENT TYPE: Journal  
LANGUAGE: Polish  
ED Entered STN: 03 Oct 1986

AB The method is based on the formation of a 1:2:4 ternary complex of Pd, Eriochrome Cyanine R and a thiolactam at pH 3.5-5.5, followed by extraction with CHCl<sub>3</sub> and spectrophotometric measurement at 500 nm for thiocaprolactam, 495 nm for thiopiperidone, and 480 nm for thiopyrrolidone in the concentration range of Pd 0.1-4.0 µg/cm<sup>3</sup>. The effect of other ions was investigated.

IT 7440-05-3, analysis  
(determination of, Eriochrome Cyanine R and thiolactams in extraction-spectrophotometric)

RN 7440-05-3 HCAPLUS

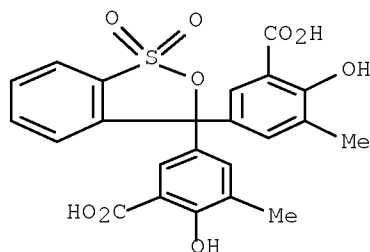
CN Palladium (CA INDEX NAME)

Pd

IT 3564-18-9  
(for determination of palladium by extraction and spectrophotometry)

RN 3564-18-9 HCAPLUS

CN Benzoic acid, 3,3'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[6-hydroxy-5-methyl-, sodium salt (1:3) (CA INDEX NAME)

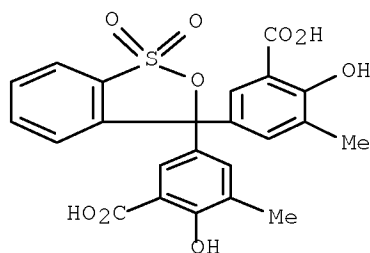


●3 Na

IT 3564-18-9D, palladium complexes 7440-05-3D,  
complexes with Eriochrome Cyanine R and thiolactams  
(spectra of)

RN 3564-18-9 HCAPLUS

CN Benzoic acid, 3,3'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[6-hydroxy-5-methyl-, sodium salt (1:3) (CA INDEX NAME)



●<sub>3</sub> Na

RN 7440-05-3 HCAPLUS  
CN Palladium (CA INDEX NAME)

Pd

CC 79-6 (Inorganic Analytical Chemistry)  
IT 7440-05-3, analysis  
(determination of, Eriochrome Cyanine R and thiolactams in  
extraction-spectrophotometric)  
IT 2295-35-4 3564-18-9 7203-96-5 13070-01-4  
(for determination of palladium by extraction and spectrophotometry)  
IT 2295-35-4D, palladium complexes 3564-18-9D, palladium  
complexes 7203-96-5D, palladium complexes 7440-05-3D,  
complexes with Eriochrome Cyanine R and thiolactams 13070-01-4D,  
palladium complexes  
(spectra of)

L47 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 1986:417581 HCAPLUS Full-text

DOCUMENT NUMBER: 105:17581

ORIGINAL REFERENCE NO.: 105:2793a,2796a

TITLE: Spectrophotometric determination of thiolactams  
with palladium(II) and Eriochrome Cyanine R

AUTHOR(S): Sikorska-Tomicka, Halina

CORPORATE SOURCE: Zakl. Chem., Politech. Bialostocka, Bialystok,  
15-351, Pol.

SOURCE: Chemia Analityczna (Warsaw, Poland) (1985  
, 30(4), 657-63

CODEN: CANWAJ; ISSN: 0009-2223

DOCUMENT TYPE: Journal

LANGUAGE: Polish

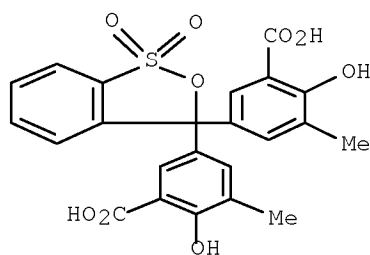
ED Entered STN: 13 Jul 1986

AB Thiolactams (TLA) reacts with Pd(II) and Eriochrome Cyanine R (ERC) to form  
ternary complexes with the Pd:ERC:TLA molar ratio 1:2:4, the complex is  
extractable at pH 3-4 with CHCl<sub>3</sub>; the  $\lambda_{\max}$  of the extract is 480-510 nm. The  
method permits the determination of 20-160  $\mu\text{g}$  thiolactam/mL (or  
thiopyrrolidone, thiopiperidinone, thiocaprolactam, thioenantholactam) in the  
presence of a 10-fold excess of lactams.

IT 3564-18-9 7440-05-3, uses and miscellaneous  
(in determination of thiolactams by extraction and spectrophotometry)



RN 3564-18-9 HCAPLUS  
 CN Benzoic acid, 3,3'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[6-hydroxy-5-methyl-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

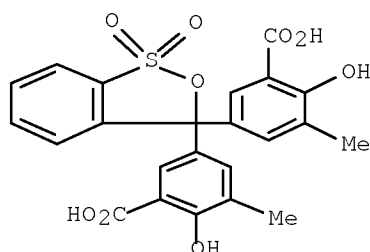
Pd

CC 80-6 (Organic Analytical Chemistry)  
 IT 3564-18-9 7440-05-3, uses and miscellaneous  
 (in determination of thiolactams by extraction and spectrophotometry)  
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS  
 RECORD (1 CITINGS)

L47 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1983:463340 HCAPLUS Full-text  
 DOCUMENT NUMBER: 99:63340  
 ORIGINAL REFERENCE NO.: 99:9689a,9692a  
 TITLE: Complex formation of some elements with Eriochrome  
 Cyanine R  
 AUTHOR(S): Tikhonov, V. N.; Anisimova, T. M.  
 CORPORATE SOURCE: Chuvash State Univ., Cheboksary, USSR  
 SOURCE: Zhurnal Analiticheskoi Khimii (1983),  
 38(5), 778-82  
 CODEN: ZAKHA8; ISSN: 0044-4502  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 ED Entered STN: 12 May 1984  
 AB The formation of complexes of Be, Cu(II), Fe(III), Pd(II), and V(IV) was  
 studied by spectrophotometry to find the optimum conditions for determining  
 these metals. The molar absorptivities of the Eriochrome Cyanine R complexes  
 are (2.2-4.7) + 104 at 520-575 nm and pH 5.4-6.8. The effects of HOAc + NaOAc  
 concentration, dilution, and acidity of the solution before adding the reagent  
 were studied. The optimum initial pH is .apprx.2.  
 IT 7440-05-3, analysis  
 (determination of, Eriochrome Cyanine R in spectrophotometric)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

IT 3564-18-9  
 (in determination of metals by spectrophotometry)  
 RN 3564-18-9 HCAPLUS  
 CN Benzoic acid, 3,3'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[6-hydroxy-5-methyl-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

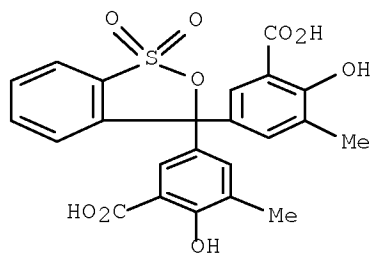
IT 7440-05-3D, Eriochrome Cyanine R complex  
 (spectrum of)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

CC 79-1 (Inorganic Analytical Chemistry)  
 Section cross-reference(s): 73, 78  
 IT 7439-89-6, analysis 7440-05-3, analysis 7440-41-7,  
 analysis 7440-50-8, analysis 7440-62-2, analysis  
 (determination of, Eriochrome Cyanine R in spectrophotometric)  
 IT 3564-18-9  
 (in determination of metals by spectrophotometry)  
 IT 7439-89-6D, Eriochrome Cyanine R complex 7440-05-3D,  
 Eriochrome Cyanine R complex 7440-41-7D, Eriochrome Cyanine R  
 complex 7440-50-8D, Eriochrome Cyanine R complex 7440-62-2D,  
 Eriochrome Cyanine R complex  
 (spectrum of)

L47 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1979:621888 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 91:221888  
 ORIGINAL REFERENCE NO.: 91:35603a,35606a  
 TITLE: Eriochrome Cyanine R in the presence of  
 cetyltrimethylammonium as a metalochrome

indicator  
 AUTHOR(S): Tikhonov, V. N.; Stepanova, T. Ya.  
 CORPORATE SOURCE: Chuvash State Univ., Cheboksary, USSR  
 SOURCE: Zhurnal Analiticheskoi Khimii (1979),  
 34(8), 1479-84  
 CODEN: ZAKHA8; ISSN: 0044-4502  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 ED Entered STN: 12 May 1984  
 AB A mixture of Eriochrome Cyanine R (I) and cetyltrimethylammonium bromide is a more selective complexometric indicator than I alone. complexometric titration with this indicator mixture gives a high contrast in the color change at the end point. Cu(II), Ga, Sc, Th, Fe(III), and In can be titrated directly with 0.005M EDTA. Al, Ti(IV), Zr, and V(IV) are determined by back titration with 0.005M FeCl<sub>2</sub>. A complexometric method was developed for Al determination in ferrosilicon.  
 IT 3564-18-9  
 (cetyltrimethylammonium bromide-containing, as mixed complexometric indicator)  
 RN 3564-18-9 HCAPLUS  
 CN Benzoic acid, 3,3'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[6-hydroxy-5-methyl-, sodium salt (1:3) (CA INDEX NAME)



●<sub>3</sub> Na

IT 7440-05-3, analysis  
 (determination of, cetyltrimethylammonium bromide-Eriochrome Cyanine R mixed indicator in complexometric)  
 RN 7440-05-3 HCAPLUS  
 CN Palladium (CA INDEX NAME)

Pd

CC 79-6 (Inorganic Analytical Chemistry)  
 IT 3564-18-9  
 (cetyltrimethylammonium bromide-containing, as mixed complexometric indicator)  
 IT 7439-89-6, analysis 7440-05-3, analysis 7440-20-2, analysis 7440-50-8, analysis 7440-55-3, analysis  
 (determination of, cetyltrimethylammonium bromide-Eriochrome Cyanine R mixed indicator in complexometric)

L47 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1978:145626 HCAPLUS Full-text

DOCUMENT NUMBER: 88:145626

ORIGINAL REFERENCE NO.: 88:22827a,22830a

TITLE: Complexing of palladium (II) with Eriochrome  
Cyanine R and cetyltrimethylammoniumAUTHOR(S): Tikhonov, V. N.; Petukhova, E. A.; Vashurkina, E.  
A.

CORPORATE SOURCE: Chuv. Gos. Univ., Cheboksary, USSR

SOURCE: Izvestiya Vysshikh Uchebnykh Zavedenii, Khimiya i  
Khimicheskaya Tekhnologiya (1978),  
21(1), 43-5

CODEN: IVUKAR; ISSN: 0579-2991

DOCUMENT TYPE: Journal

LANGUAGE: Russian

ED Entered STN: 12 May 1984

AB Pd<sup>2+</sup> was determined spectrophotometrically by measuring the absorbance of the  
1:2:3 Pd-Eriochrome Cyanine R-cetyltrimethylammonium complex at 600-20 nm  
(molar absorptivity 9.6 + 104) in a pH 5.5-6.0 NaOAc buffer. Cu<sup>2+</sup>, Be, Al,  
Ga, In, Sc, Fe<sup>3+</sup>, EDTA, tartrate, and citrate interfere strongly.IT 7440-05-3, analysis  
(determination of, cetyltrimethylammonium and Eriochrome Cyanine R in  
spectrophotometric)

RN 7440-05-3 HCAPLUS

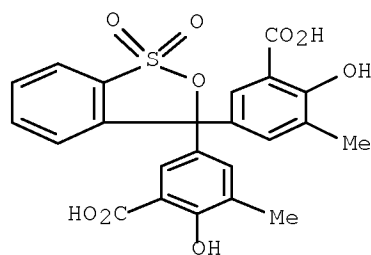
CN Palladium (CA INDEX NAME)

Pd

IT 3564-18-9

(in determination of palladium by spectrophotometry)

RN 3564-18-9 HCAPLUS

CN Benzoic acid, 3,3'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[6-  
hydroxy-5-methyl-, sodium salt (1:3) (CA INDEX NAME)

● 3 Na

IT 7440-05-3D, cetyltrimethylammonium and Eriochrome Cyanine R  
complex

(spectrum of)

RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

Pd

CC 79-6 (Inorganic Analytical Chemistry)  
 IT 7440-05-3, analysis  
 (determination of, cetyltrimethylammonium and Eriochrome Cyanine R in  
 spectrophotometric)  
 IT 57-09-0 3564-18-9  
 (in determination of palladium by spectrophotometry)  
 IT 2588-24-1D, titanium complex 6899-10-1D, titanium complex  
 7440-05-3D, cetyltrimethylammonium and Eriochrome Cyanine R  
 complex  
 (spectrum of)

L47 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1976:503400 HCAPLUS Full-text

DOCUMENT NUMBER: 85:103400

ORIGINAL REFERENCE NO.: 85:16497a,16500a

TITLE: Spectrophotometric determination of the platinum  
 metals. Determination of palladium with  
 Eriochrome Cyanine R in the presence of  
 cetylpyridinium bromide

AUTHOR(S): Duchkova, H.; Malat, M.; Cermakova, L.

CORPORATE SOURCE: Dep. Anal. Chem., Charles Univ., Prague, Czech.

SOURCE: Analytical Letters (1976), 9(5), 487-95  
 CODEN: ANALBP; ISSN: 0003-2719

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 12 May 1984

AB A new photometric method was developed for the determination of  $\mu\text{g}$  amts. of  
 Pd(II) on the basis of a ternary complex of the metal, Eriochrome Cyanine R,  
 and cetylpyridinium bromide, which is formed in an acetate buffer medium (pH  
 3.5-5.5) and exhibits an absorption maximum at 630 nm. The system obeys Beer's  
 law for 0.2-2.7 ppm Pd(II). The mean relative standard deviation is 0.14%,  
 the molar absorptivity is  $6.5 + 10^4$  at the wavelength of the maximum  
 difference between the absorbances of the sample and the blank (630 nm), and  
 the detection limit is  $1.2 + 10^{-3} \mu\text{g cm}^{-2}$  for  $A = 0.001$ .

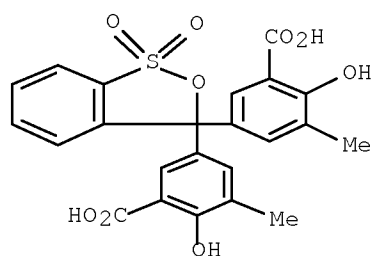
IT 7440-05-3, analysis  
 (determination of, Eriochrome Cyanine R and cetylpyridinium bromide in  
 spectrophotometric)

RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

Pd

IT 3564-18-9  
 (in determination of palladium, spectrophotometric)  
 RN 3564-18-9 HCAPLUS  
 CN Benzoic acid, 3,3'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[6-  
 hydroxy-5-methyl-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

IT 7440-05-3D, Palladium, cetylpyridinium and Eriochrome  
Cyanine R complex  
(spectrum of)

RN 7440-05-3 HCAPLUS

CN Palladium (CA INDEX NAME)

Pd

CC 79-6 (Inorganic Analytical Chemistry)

IT 7440-05-3, analysis  
(determination of, Eriochrome Cyanine R and cetylpyridinium bromide in  
spectrophotometric)

IT 140-72-7 3564-18-9  
(in determination of palladium, spectrophotometric)

IT 2588-24-1D, Benzoic acid, 5-[(3-carboxy-5-methyl-4-oxo-2,5-  
cyclohexadien-1-ylidene)(2-sulfohenyl)methyl]-2-hydroxy-3-methyl-,  
palladium complex 7440-05-3D, Palladium, cetylpyridinium  
and Eriochrome Cyanine R complex 7773-52-6D, Pyridinium,  
1-hexadecyl-, palladium complex  
(spectrum of)

L47 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1971:119771 HCAPLUS Full-text

DOCUMENT NUMBER: 74:119771

ORIGINAL REFERENCE NO.: 74:19333a,19336a

TITLE: Colored chelate of palladium(II) with Eriochrome  
Cyanine RC

AUTHOR(S): Shrivastawa, Suresh C.; Munshi, Kailash N.; Dey,  
Arun K.

CORPORATE SOURCE: Chem. Lab., Univ. Allahabad, Allahabad, India

SOURCE: Journal of the Indian Chemical Society (  
1970), 47(10), 1013-14

CODEN: JICSAH; ISSN: 0019-4522

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 12 May 1984

AB Pd(II) formed a 1:1 anionic complex with Eriochrome Cyanine RC with the  
conditional stability constant  $\log K = 5.0$  at  $25^\circ$  and at pH 4.5, which

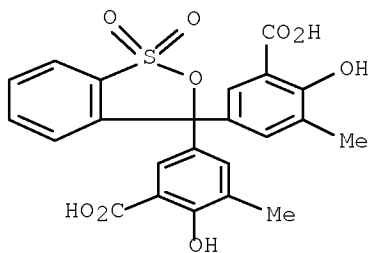
10/530,790

followed Beer's law at 550 nm (molar absorptivity was  $1.35 \times 10^4$ ) at pH 4.5 for 0.21-5.12 ppm Pd. The proposed structure for the complex involved a chelate ring formed by Pd coordination with the phenolic O and adjacent carboxylic O atoms.

IT 7440-05-3, analysis  
(determination of, C.I. Mordant Blue 3 in)  
RN 7440-05-3 HCAPLUS  
CN Palladium (CA INDEX NAME)

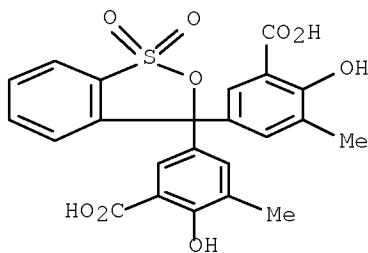
Pd

IT 3564-18-9  
(in determination of palladium)  
RN 3564-18-9 HCAPLUS  
CN Benzoic acid, 3,3'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[6-hydroxy-5-methyl-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

IT 3564-18-9DP, C.I. Mordant Blue 3, palladium complexes  
(preparation of)  
RN 3564-18-9 HCAPLUS  
CN Benzoic acid, 3,3'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[6-hydroxy-5-methyl-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

CC 79 (Inorganic Analytical Chemistry)  
IT 7440-05-3, analysis  
(determination of, C.I. Mordant Blue 3 in)  
IT 3564-18-9  
(in determination of palladium)  
IT 3564-18-9DP, C.I. Mordant Blue 3, palladium complexes  
(preparation of)



10/530,790

=> d his nofile

(FILE 'HOME' ENTERED AT 09:57:32 ON 03 JUN 2010)

FILE 'HCAPLUS' ENTERED AT 09:57:43 ON 03 JUN 2010

L1 1 SEA SPE=ON ABB=ON PLU=ON US20050266574/PN  
SEL RN

FILE 'REGISTRY' ENTERED AT 09:57:55 ON 03 JUN 2010

L2 8 SEA SPE=ON ABB=ON PLU=ON (115-41-3/BI OR 1667-99-8/BI  
OR 1796-92-5/BI OR 3564-18-9/BI OR 7440-05-3/BI OR  
7440-50-8/BI OR 7647-10-1/BI OR 7758-98-7/BI)

E CHROME AZUROL S/CN

L3 1 SEA SPE=ON ABB=ON PLU=ON "CHROME AZUROL S"/CN

E CHROME AZUROL B/CN

L4 1 SEA SPE=ON ABB=ON PLU=ON "CHROME AZUROL B"/CN

E ERIOCHROME CYANINE/CN

L5 1 SEA SPE=ON ABB=ON PLU=ON "ERIOCHROME CYANINE"/CN

L6 1 SEA SPE=ON ABB=ON PLU=ON "ERIOCHROME CYANINE R"/CN

E PYROCATECHOL VIOLET/CN

L7 1 SEA SPE=ON ABB=ON PLU=ON "PYROCATECHOL VIOLET"/CN

L8 STR

L9 3 SEA SSS SAM L8

L10 STR L8

L11 0 SEA SSS SAM L10

L12 SCR 1029 OR 1035

L13 1 SEA SSS SAM L10 AND L12

L14 SCR 1139

L15 3 SEA SSS SAM L10 AND L14

L16 931 SEA SSS FUL L10 AND L14

L17 2 SEA SPE=ON ABB=ON PLU=ON L16 AND L2

SAV L16 WHI790/A

L18 0 SEA SPE=ON ABB=ON PLU=ON L16 AND PD/ELS

L19 2 SEA SPE=ON ABB=ON PLU=ON L2 AND PD/ELS

L20 148 SEA SPE=ON ABB=ON PLU=ON L16 AND M/ELS

L21 783 SEA SPE=ON ABB=ON PLU=ON L16 NOT L20

FILE 'HCAPLUS' ENTERED AT 10:25:01 ON 03 JUN 2010

L22 124082 SEA SPE=ON ABB=ON PLU=ON L19

L23 1090 SEA SPE=ON ABB=ON PLU=ON L17

L24 19 SEA SPE=ON ABB=ON PLU=ON L22 AND L23

L25 12051 SEA SPE=ON ABB=ON PLU=ON L16

L26 82 SEA SPE=ON ABB=ON PLU=ON L22 AND L25

L27 54 SEA SPE=ON ABB=ON PLU=ON L26 AND ANST/RL

L28 2280 SEA SPE=ON ABB=ON PLU=ON L3 OR L4 OR L6 OR L7

L29 39 SEA SPE=ON ABB=ON PLU=ON L28 AND L22

L30 32 SEA SPE=ON ABB=ON PLU=ON L29 AND ANST/RL

L31 31 SEA SPE=ON ABB=ON PLU=ON L30 AND (1840-2003)/PRY,AY,PY

FILE 'REGISTRY' ENTERED AT 10:29:27 ON 03 JUN 2010

L32 32 SEA SUB=L16 SSS SAM L8

L33 STR L8

L34 7 SEA SUB=L16 SSS SAM L33

L35 167 SEA SUB=L16 SSS FUL L33

SAV L35 WHI790A/A

FILE 'HCAPLUS' ENTERED AT 10:35:27 ON 03 JUN 2010

L36 3081 SEA SPE=ON ABB=ON PLU=ON L35

10/530,790

L37 37 SEA SPE=ON ABB=ON PLU=ON L36 AND L22  
L38 36 SEA SPE=ON ABB=ON PLU=ON L37 AND (1840-2003)/PRY,AY,PY  
L39 1 SEA SPE=ON ABB=ON PLU=ON L38 AND L1

FILE 'REGISTRY' ENTERED AT 10:37:56 ON 03 JUN 2010  
L40 1 SEA SPE=ON ABB=ON PLU=ON 7440-05-3/RN

FILE 'HCAPLUS' ENTERED AT 10:38:36 ON 03 JUN 2010  
L41 116334 SEA SPE=ON ABB=ON PLU=ON L40  
L42 36 SEA SPE=ON ABB=ON PLU=ON L38 AND L41  
L43 18 SEA SPE=ON ABB=ON PLU=ON L24 AND (1840-2003)/PRY,AY,PY  
L44 36 SEA SPE=ON ABB=ON PLU=ON L42 OR L43  
L45 22 SEA SPE=ON ABB=ON PLU=ON L31 AND L44  
L46 36 SEA SPE=ON ABB=ON PLU=ON L44 OR L45  
L47 9 SEA SPE=ON ABB=ON PLU=ON L31 NOT L46  
L48 27 SEA SPE=ON ABB=ON PLU=ON L27 AND L46  
L49 36 SEA SPE=ON ABB=ON PLU=ON L46 OR L48